

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

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COMCAST CABLE COMMUNICATIONS,	:	CIVIL ACTION NO. 12-0859
LLC, et al.,	:	
Plaintiffs	:	
	:	
v.	:	Philadelphia, Pennsylvania
	:	February 8, 2017
SPRINT COMMUNICATIONS	:	1:42 o'clock p.m.
COMPANY L.P., et al.,	:	
Defendants	:	
.	:	

AFTERNOON SESSION - DAY EIGHT
BEFORE THE HONORABLE JAN E. DUBOIS
SENIOR UNITED STATES DISTRICT COURT JUDGE

- - -

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AFTERNOON SESSION

(The following occurred in open court at 1:42 o'clock p.m.)

THE COURT: Be seated, everyone. Because of the anticipated snow, I thought we ought to talk for a few minutes.

MR. FINKELSON: We actually, Mr. Hangle and I were talking about that on the break, as well. My suspicion, your Honor, is if the snow comes and it cause either a delay or a cancellation tomorrow, it may not actually end up costing us that much time. Because what we would do in that instance, I suspect that Mr. Lanning will be on and off the stand by the end of the day. That's including cross-examination, that's my expectation. I'm not sure that we'll get to Dr. Polish in our validity case today. But if we have a snow event tomorrow, so we lose tomorrow all together, then Friday, at least up through the time we complete our liability case, we don't have Mr. Riopelle's schedule as an issue, because I'll be putting Dr. Polish on the stand. Now, are we going to go much more than a half day with Dr. Polish, I probably think not. But we would, at least, have that overage time available to us to complete him and then that would put us in essentially the same position where we thought we might otherwise be, maybe minus, minus a half a day, I guess, at the outer limits.

1 MR. HANGLEY: I think that sounds right to me.

2 THE COURT: We talked about that briefly yesterday.
3 About using, well, we weren't thinking of a snow recess, but
4 I was thinking about putting the liability evidence in on
5 Friday afternoon and Monday.

6 MR. FINKELSON: I don't suspect we'll need all of
7 the day Friday to get there. I'm positive we will not need
8 Monday, but we also, another idea is we get the liability
9 case done, the jury can leave and then the lawyers can
10 address charging and the like with the Court.

11 THE COURT: I agree. I agree and we have a choice
12 particularly in protracted cases. I sometimes put a separate
13 message on our telephone message system. I don't think we'll
14 do it in this case. I think we'll abide by what the court
15 decides. There are several judges, we're not quite sure who
16 got the task, but you have to get up very early and you have
17 to be clairvoyant. You can't shut the courthouse down and
18 have no snow and you can't keep it open and then everyone are
19 buried in drifts.

20 MR. FINKELSON: If we get the kind of snow they're
21 talking about, which is four inches plus, at the time they're
22 talking about it, would the typical practice of the court be
23 to be closed for the entire day or just --

24 THE COURT: No, I think that a four-inch snow, it
25 would probably be a late start. But I avoid serving on that

1 committee. It's not exactly a committee.

2 MR. FINKELSON: The weather permitting?

3 MR. HANGLEY: Not one of the gladder appointments?

4 MR. FINKELSON: I suspect you've reached the point,
5 your Honor, where you can say no to the weather committee
6 nomination, too.

7 THE COURT: Yes, it doesn't go down in your resume
8 as a plus. But I think we'll abide by what is said. You all
9 have the number and we'll confirm this -- the jury has been
10 told. Milahn has the cellphone numbers of each juror and
11 they have the contact number at the court and Milahn's
12 cellphone number.

13 MR. HANGLEY: I gather that the really worrisome
14 things are like west of here, Lancaster and places like that
15 where juries come from. And they're talking about more than
16 we're going to get.

17 THE COURT: So, they're not thinking about you guys.
18 Well, I'm not sure -- you're not living in town yet.

19 MR. HANGLEY: I'm not living in town yet.

20 THE COURT: I'm not and I live down a long driveway
21 and guess what, it goes up.

22 MR. HANGLEY: Of course.

23 THE COURT: But I have an all-wheel drive car that
24 usually gets me out. So, I think for you people in the hotel
25 or the hotels, it won't be much of a problem.

1 MR. FINKELSON: I can't imagine it would be any
2 problem for us.

3 THE COURT: So, we'll wait and see, but well, we'll
4 get an update. What I want from you before we recess is an
5 update on the weather and then we'll decide. We can
6 eliminate the mystery by agreeing to start late.

7 MR. FINKELSON: Whatever the Court's preference.
8 We're happy to do it, however, we think it makes the most
9 sense. It's really the jury that's --

10 THE COURT: Let's see what happens at day end and
11 we'll tell them.

12 MR. HANGLEY: Yes, because, almost -- I always have
13 problems with starting later if it turns out to be as bad as
14 everybody -- as some people are saying it might be. Because
15 many of people travel a long distance for relatively --

16 THE COURT: Well, I think it has much more of an
17 impact on the jurors.

18 MR. HANGLEY: Yes.

19 THE COURT: Because we've drawn none from
20 Philadelphia County. The number of Lancaster, three.
21 Montgomery, Berks, Bucks, Chester. So, we'll see, just
22 wanted you to know that we're thinking about it. We'll have
23 a definite word by day end. But right now, I'm thinking
24 we'll use the Code-A-Phone and if the courthouse is closed,
25 we'll be closed. If they're open or open late, we'll abide

1 that order.

2 MR. HANGLEY: Now, the jurors -- the jurors call in
3 and when do they call in?

4 THE COURT: Well, they can call in -- what time is
5 the phone on? 5:00, 6:00?

6 THE DEPUTY CLERK: It varies. I find that it's
7 usually more about 5:00 or 5:30. But they --

8 MR. HANGLEY: Depends on what time a Punxsutawney
9 judge gets up and things happen.

10 THE DEPUTY CLERK: But also, I'm going to be giving
11 them my cell number, so that and I've instructed them not to
12 try and make a move until we've touched base. I'm prepared
13 to deal with that.

14 THE COURT: So, we'll do it that way.

15 MR. FINKELSON: Thank you.

16 MR. HANGLEY: Thank you, your Honor.

17 THE COURT: You'll bring the jury in, Milahn?

18 THE DEPUTY CLERK: Yes.

19 (Pause.)

20 THE DEPUTY CLERK: All rise.

21 (Jury enters.)

22 THE COURT: Be seated, everyone. You were all here
23 on time. We were addressing the weather. We might have an
24 issue tomorrow. We'll give you instructions at day end.
25 There's just a number to call and we'll make sure that you

1 have Milahn Hull's cellphone number. I don't want you
2 thinking about that now, we'll take care of it and give you
3 instructions at that. And now we'll continue with the direct
4 examination of Mr. Lanning.

5 MR. FINKELSON: Thank you, your Honor.

6 MARK LANNING, Previously Sworn, Resumes

7 DIRECT EXAMINATION

8 BY MR. FINKELSON:

9 Q Welcome back, Mr. Lanning. Before lunch we were making
10 our way through your analysis with respect to the accused SMS
11 in this case and I wanted to pick up there. We were about to
12 turn yet another Sprint design document that you considered
13 in the course of rendering your opinions with respect to
14 non-infringement. Do you see that on Slide 54, sir?

15 A Yes.

16 Q Can you tell the jury what appears on Slide 54?

17 A The title of this document is IMS Modernization Design.
18 This is another specific design document.

19 Q And is this DX-209?

20 A Yes.

21 Q Why did you consider this design document, sir?

22 A Because it had information in it about Sprint's cellular
23 network and Sprint's core network that I wanted to consider.

24 Q Do you see in front of you, Figure 3.2.3.1 from DX-209?

25 A Yes.

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1 Q And can you tell the jury what you are looking on Slide
2 56?

3 A Yes, there's a lot of information on this slide, but the
4 information that's relative to my testimony today are the
5 boxes that you see along the top, with the text to the right
6 that says, CDMA Core.

7 Q Why did you consider that information, in this design
8 document, to be relevant to your analysis?

9 A Because this is an internal Sprint design document and
10 these are the systems or I refer to boxes or elements. These
11 are the systems that Sprint considered to be part of its core
12 network.

13 Q Is it an exhaustive set of those components?

14 A No, again, this is for the IP type packet architecture,
15 the new line of architecture that they were rolling out.

16 Q And are those elements highlighted here in your
17 presentation, Slide 57?

18 A Yes, again, I've highlighted the elements that are
19 relative to our discussion today. The ones that are
20 highlighted is the MSC, that's the mobile switching center.
21 Next to it is the SMSC, that's the short message service
22 center. The HLR is the home location register.

23 Q What do you understand the reference to CDMA core to
24 mean?

25 A This means that this document is showing that at least

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1 all of these elements are part of Sprint's CDMA core network
2 or its core network.

3 Q Have you prepared Slide 58?

4 A Yes.

5 Q Can you tell the jury what you are trying to convey to
6 them in Slide 58.

7 A Well, this is the CDMA standard we're looked at already
8 on the left. And what I've done is I've colored the
9 different components, the different systems that are in the
10 Sprint document to show that each one of the documents or
11 each one of the systems the Sprint document says they are in
12 its core network, are also recommended by the standard to be
13 in the core network, as you see by the dark colors. So, all
14 of those systems in that row, are all listed in the CDMA 2000
15 standard as being part of the core network.

16 Q Is that the CDMA 2000 standard that we looked at earlier
17 from 1999?

18 A Yes.

19 Q DX-6. You've also prepared Slide 59, this is the same
20 excerpt, I believe, Mr. Lanning, from DX-209, is that right?

21 A That's correct.

22 Q Well, why have you highlighted IS-41 in this document?

23 A It's a little hard to read, but what this means is that
24 the communications interface that I referred to earlier
25 between the SMSC, the MSC, for instance and the HLR is all

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1 based on the ANSI-41 standards document that I discussed
2 earlier, both versions of it.

3 Q Going back to 1997 and 1999?

4 A That's correct.

5 Q Is IS-41 a synonym for ANSI-41?

6 A Yeah, that's a sort version. Typically, the engineers
7 keep everything as short as we can. So, it really means ANSI
8 IS-41.

9 Q Did you hear Dr. Akl say the same thing in his testimony?

10 A I believe so, yes.

11 Q All right, on Slide 60 is DX-224, is that another Sprint
12 document that you considered in the course of your analysis
13 with respect to the allegations of infringement against
14 Sprint's SMS?

15 A Yes.

16 Q Can you explain to the jury what DX-224 is and why you
17 thought it was relevant?

18 A There's a lot of different lines, a lot of text on this
19 document. We refer to this document, typically, as a message
20 trace. To give you an idea of this is just one message that
21 is sent between the SMSC and the HLR and there's a piece of
22 test equipment that will capture all the information. So,
23 just in one request and one response, this is a listing of
24 all of the different information that's passed back and forth
25 in one query and one response. And this shows, from the

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1 actual test monitor and test message, that this test that was
2 actually typed in off a communication link between these in
3 the Sprint, is based on the ANSI-41 requirement.

4 Specifically, the message is an SMS request message and it
5 has a specific format, specific information that's encased in
6 the message.

7 Q Is there also a response message?

8 A Yes, in response to the request message from the SMSC to
9 the HLR, the next page, I've highlighted the response.

10 Q And --

11 A And --

12 Q Go ahead, sir.

13 A And the result is also an ANSI-based response. So, this
14 shows me that Sprint is indeed compliant with the ANSI-41
15 standard.

16 Q Does the ANSI-41 standard from 1997 talk about this type
17 of exchange between the HLR and the message center for short
18 messaging?

19 A Yes, it defines a specific interface and then defines all
20 the messages that go over that interface.

21 Q Do those include inquires that come from the message
22 center to the HLR?

23 A Yes.

24 Q And that's true back in 1997, as well?

25 A Yes.

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1 Q Slide 64, Mr. Lanning, what does that depict?

2 A This is a recap of looking at the 1997 ANSI standard, the
3 ANSI-41 standard, showing where each of the different
4 elements that are defined by the standard are also in the
5 Sprint's network. They put them in the same place as the
6 standard requires or recommends, I should say.

7 Q We've looked at a number of Sprint technical documents
8 with respect to SMS, are those the only ones that you
9 reviewed in the course of your analysis?

10 A No, I've reviewed many other documents.

11 Q Slide 65, I've turned to now, Mr. Lanning. In your
12 opinion, what does the evidence show with respect to Sprint's
13 SMS messaging that is accused of infringement in this case?

14 A That the Sprint SMS messaging does not infringe. The
15 asserted claims and I've started with Claim 1, it might seem
16 a little backwards, but I'd like to go down to the bottom
17 element, the last part of Claim 1. And I've highlighted it
18 where the messaging server is external to the cellular
19 network. And as I've explained, I don't believe this Sprint
20 messaging server, the SMS, is external to the cellular
21 network. So, therefore, it would not meet this claim
22 element.

23 And then if I go up to the top one that I've
24 highlighted, this is sending an inquiry from the messaging
25 server to the cellular network and I've put an X through that

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1 because this limitation assumes or requires that the
2 messaging server is external. If it's not, it can't send
3 that query, that inquiry. Meaning it's like passing the ball
4 to yourself, you can't pass the ball to yourself if it's not
5 external to the network. So, for at least these two reasons,
6 I believe that Claim 1 is not infringed by Sprint.

7 Q And is that your opinion, sir, with respect to SMS in
8 Claim 1?

9 A Right, we're talking about the SMS now, so specifically,
10 the short message server.

11 Q What is your opinion, Mr. Lanning, with respect to
12 whether Sprint's accused SMS infringes asserted Claim 7?

13 A Asserted Claim 7 is what we refer to as a dependent claim
14 on Claim 1. Years ago I had it explained to me that it's
15 just shorthand instead of rewriting every claim to include
16 the independent claim and the dependent claim. I've just
17 inserted it here to show how you read Claim 7, because it
18 depends on Claim 1. And so, where 7 depends on Claim 1, if
19 Claim 1 is not infringed, then Claim 7 is not infringed
20 because it depends on Claim 1. So, for the same reasons I
21 just stated for Claim 1, I don't believe that the Sprint
22 short message servers infringe Claim 7.

23 Q And when you say short message servers, are you speaking
24 about SMS, the accused SMS generally?

25 A The accused, again, the problem with acronyms and

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1 different names, we have multiple names, but I'm speaking
2 specifically of the message servers that provide the short
3 message service in the Sprint network and the Sprint cellular
4 network.

5 Q And if you take all of the steps of Claim 1 and Claim 7,
6 altogether, as they are asserted against Sprint's provision
7 of SMS, is it your opinion that Sprint's provision of SMS
8 does not infringe Claim 7 for the same reasons that you
9 stated with respect to Claim 1?

10 A Yes.

11 Q Just what this jury needs is an un-asserted claim, but if
12 you can explain why you have included Claim 112 on Slide 67?

13 A Claim 112 isn't asserted, but Claim 113 is asserted and
14 if you look at the beginning of Claim 113, it's dependent
15 upon Claim 112. So, again, even though they -- Comcast
16 doesn't say 112 is asserted, if they assert 113 and it needs
17 112, you have to look at 112. So, I looked at Claim 112 and
18 I've included the highlighting around the same type of
19 language and for the same reasons I stated for Claim 1, Claim
20 112 is not infringed by Sprint's messaging servers for short
21 messaging service.

22 Q What is your opinion, sir, with respect to Claim 113?

23 A And now we have 113 at the bottom of the page and you see
24 the first words in 113 are "The method of Claim 112." That's
25 what makes it a dependent claim, so you have to look up at

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1 112, add all the functionality that's included in 112 and
2 with 113. And so, because 112 is not infringed, 113 is not
3 infringed by the short messaging servers in Sprint cellular
4 network.

5 Q And just to be clear, is it your opinion that Sprint's
6 accused SMS services do not infringe Claim 113?

7 A Yes.

8 Q Is that because, in your opinion, with respect to all of
9 the asserted claims, Sprint's accused messaging servers for
10 SMS are internal to its cellular network and not external?

11 A Yes, that's correct. As I explained early on, the key
12 question for these claims is where are the Sprint message
13 servers? Are they internal to the cellular network or
14 external. And I found they're internal and the claims
15 require that they be external.

16 Q Let's turn next to MMS, Mr. Lanning and I think we can
17 move through that one a little bit more quickly based on the
18 work we've already done. Did you also look at Sprint's
19 accused MMS services?

20 A Yes. And now we're going to go through the MMS, which is
21 multi-media. To give you an idea, the MMS standards and the
22 short message standards occurred about 8 to 10 years apart.
23 We had short message services for years in the network and
24 then when the third generation network started coming out,
25 then the people and everyone thought that it would be better

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1 to have bigger messages to be able to send. And so, now
2 we're talking about the multi-media messages where you can
3 send pictures and texts and videos.

4 Q And with respect to Sprint's SMS, what have you tried to
5 portray for the jury in Slide 72?

6 A This looks similar, but the key difference in MMS message
7 flow in this diagram is after the message hits the tower,
8 instead of going to the mobile switching center that's at the
9 top of the screen, this now goes through the data network in
10 Sprint's core network. So, that's what the PDSN is -- the
11 Packet Data Service Node, meaning it's working on and routing
12 IP packets and that protocol type packets to the messaging
13 server.

14 Q And when it comes to -- when it comes to MMS, what are
15 the messaging servers called?

16 A MMSC is one of the acronyms that I'll use.

17 Q And what does the MMSC do in Sprint's system?

18 A It does similar functions to the SMSC, because it needs
19 to do, at a high level, the same functions. But it also
20 needs to do some conversion type functions. Sometimes, a
21 person will send a picture in one format that may not be
22 compatible with the capability of a phone. That it can re-
23 save it so it needs to convert formats. So, along with doing
24 the receiving, querying, straining, blocking, routing that I
25 explained and just going forward for the short message

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1 service center, the multi-media message server has a little
2 bit more sophisticated functionality to handle all these
3 different types of media.

4 Q And in your presentation for the jury, much like you did
5 for SMS, did you try to portray visually some of the
6 functions that the messaging servers perform for MMS,
7 depending on the flow?

8 A Yes, again, it's similar even with the exception that the
9 flow goes through the PDSN instead of the mobile switching
10 center. The message that MMSC sees can block messages and
11 strain the messages as I'm showing here with the stop sign at
12 the message server.

13 Q And how about for messages that the messaging server
14 decides not to stop, but are headed for a subscriber outside
15 of Sprint?

16 A The example here is if the message is for a T-Mobile
17 subscriber, the MMSC routs the message to T-Mobile and then
18 the T-Mobile network will deliver that message to the phone
19 that's on the T-Mobile network.

20 Q And on Slide 76, sir?

21 A And if the message, the multi-media message is for
22 another Sprint subscriber, the MMSC will forward that message
23 to that Sprint subscriber when the Sprint's subscriber's
24 phone is ready to receive it.

25 Q So, in conducting your analysis with respect to MMS,

1 where did you start?

2 A Started back where we looked at with the SMS, you've got
3 to start back at the standards, that's the foundation that I
4 looked for. So, again, I looked to the relevant standards.

5 Q And again, I take it, that was after, as you said
6 earlier, you did an initial analysis of the patent in suit,
7 the '870 Patent, correct?

8 A Right, right, it's the same patent, but two different
9 types of messaging servers are being accused of infringement.
10 So, I was still familiar with the patent, but then needed to
11 look at the standard updates for MMS service.

12 Q What are you showing on Slide 78, Mr. Lanning?

13 A This is the slide I showed earlier, just a reminder that
14 the message center, which I've also used the different
15 acronyms for, is inside the cellular network based on the
16 1997 standard for the CDMA 2000 networks.

17 Q And are you familiar with Dr. Akl's testimony during the
18 course of depositions in this case, with respect to whether
19 an MMSC can be an MC as depicted in the standards
20 documentation for ANSI-41?

21 A Yes, Dr. Akl has said and I agree, that this MC could
22 either be an SMSC or an MMSC.

23 Q Did you look at standards documentation specific to MMS,
24 as well?

25 A Yes, now this is a different document than I've showed

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1 you earlier, because it's specific to MMS. And this came out
2 much later than some of the other documents.

3 Q Did you consider this document, as well, in the course of
4 forming your opinions with respect to MMS?

5 A Yes.

6 Q And specifically, to put ourselves in time, is this in
7 2002?

8 A Yes.

9 Q Do you see, sir and this is in DX-8, the text and diagram
10 under the or next to the Number 6.4.2?

11 A Yes.

12 Q And is this text and a diagram that appears in DX-8 with
13 the addition of coloring from you, orange and blue?

14 A Yes, I've added the coloring, but everything else was in
15 the document.

16 Q What is the standards document showing and saying with
17 respect to MMS in DX-8?

18 A The standard says basically that there's, at least, two
19 different scenarios that are relevant here today. That the
20 MMSC can either be inside the core network as Scenario 2 and
21 I've highlighted that with the orange text. And if you look
22 down at the drawing, the Number 2 is cellular network, that's
23 showing the whole -- that the MMSC is in the core network and
24 that's Scenario 2.

25 Q Before you go to Scenario 5, with respect to the text

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1 that is written in this standards document as relates to
2 Scenario 2 that you've highlighted in orange, can you read
3 that text to the jury, sir?

4 A "That some network operators may wish to implement the
5 MMS functionality within the core network. (e.g. Scenarios 1
6 and 2.)"

7 Q And is there then a cloud below that identified as Number
8 2 with the word cellular network?

9 A Yes, as you can see the 2. So, that's what the text
10 applies to, is at least, the Scenario 2, that's numbered 2,
11 where all of the MMS functionality is implemented inside the
12 core network.

13 Q Would that MMS functionality include the messaging
14 servers for MMS?

15 A Yes.

16 Q And I think you were then going to describe a second
17 scenario to the jury that's outlined in this standards
18 document?

19 A No, this is a little different than SMS standards we
20 looked at, because in this for the MMS, this standard is
21 saying there might be another alternative, which is Scenario
22 5, which I've highlighted in blue and I'll read it. And it
23 says, "And still, some network operators may wish to allow a
24 third-part MMS provider to use their networks for
25 provisioning MMS. (e.g. Scenario 5)." So, what's shown for

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1 Scenario 5 is the cloud with the 5 in it, but you'll notice
2 that it's connected to a circle that's labeled third-part
3 service provider. And that circle is outside the core
4 network. So, this would be a third party. I guess I would
5 look at that back to my example of the laundry scheme,
6 Scenario 5 is the laundromat where you do your clothes at a
7 service bureau, a separate laundromat. Scenario 2 would be
8 where you do your clothes, wash your clothes in the
9 apartment.

10 Q Would Scenario 5 be an instance where the messaging
11 server for MMS was outside the operator's cellular network,
12 external to it?

13 A Yes.

14 Q Would Scenario 2 be an example of where the messaging
15 servers for MMS were inside the core network of the
16 operator's cellular network?

17 A Yes.

18 Q Did you also look at Sprint technical documentation with
19 respect to MMS?

20 A Yes, the same type of process as I did for SMS.

21 Q And some of the same documents?

22 A Some of the same documents, some different.

23 Q Have you highlighted a number of those documents in this
24 presentation?

25 A Yes.

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23

1 Q I think we talked earlier about DX-13, was that one of
2 the documents that you looked at with respect to MMS, as
3 well?

4 A Yes.

5 Q Can you describe for the jury what the Sprint network
6 diagram shows for MMS in Exhibit DX-13 dated back in 2008?

7 A I think in order not to get confused by this slide, you
8 need to understand that Sprint initially started with a MMS
9 service called Picture Mail. And that was implemented over
10 on the left, in the box on the left, where I've highlighted
11 hosted off network. So, you see that as the MMSC. Now, if
12 you look at the title of the slide, this is a slide about
13 moving, how Sprint is going to go about moving the MMSCs into
14 their network. They started external, similar to what I did
15 at British Telecom and over time, they decided to move both
16 of their -- all of their MMSC functionality inside their
17 network. So, this document is showing how they're moving the
18 MMSC functionality that's currently off network to an in
19 network type solution.

20 Q Well, at this point in time in 2008 and we'll take the
21 jury through the progression. At this point in time in 2008,
22 was Sprint's MMSC hosted off network as part of the Syniverse
23 Picture Mail platform?

24 A Yes, so this off network, it would be like for a service
25 bureau and again, thinking about the analogy, I think of this

1 solution as being the laundromat solution for the Picture
2 Mail. They had it in an outside, different company supplied
3 it and supported it.

4 Q Do you understand that this jury, sir, does not have to
5 decide whether Sprint's MMS messaging, using Syniverse
6 Picture Mail servers infringes the '870 Patent?

7 A Yes.

8 Q But do you also understand that this jury may consider
9 evidence related to Syniverse Picture Mail to the extent it
10 bears on the decision for the jury on Comcast's claim that
11 Sprint has infringed the '870 Patent through its use of
12 messaging servers other than Syniverse Picture Mail?

13 A Yes.

14 Q So, why are you showing for this jury this external MMSC
15 solution?

16 A I had to weigh whether I should even show Picture Mail
17 and added a level of confusion. Why is that there? Why is
18 it external? But I wanted to add it to show you, to give you
19 a clear contrast of what's going on. Again, I'd like to go
20 back to my laundry example, hopefully it works. If Sprint
21 had a laundromat, they decided to pull their washer and dryer
22 inside their network. These steps clearly show that Picture
23 Mail, well, you heard the instruction to not consider, it
24 shows clearly that it was external, but the MMSCs that you're
25 to consider for this case, are internal. And so, I really

1 wanted to show this contrast of the difference between
2 external and internal even in the Sprint network, as far as
3 the MMSCs are concerned. And that's why I've tried to
4 clearly minimize confusion by labeling this the old solution,
5 meaning that's not the one to consider for where their MMSCs
6 are today. And in the next slides, I'll show you how they've
7 moved them into their network.

8 Q Okay, I've turned to Slide 85, which is DX-229. Do you
9 recognize this document, sir?

10 A Yes.

11 Q And what is this document showing?

12 A This document, again, is showing the connections and the
13 network configuration for the Picture Mail application that
14 was external to the network. And this is important to me
15 because I wanted to see how Sprint treated an external MMSC
16 for connections with its core network versus maybe an
17 internal one. And there's information here that clearly
18 shows me that this Picture Mail is truly external to Sprint's
19 cellular network.

20 Q And what information is that?

21 A If you look at the bottom, there's a little cloud with
22 all these lines that are going through it and that says OSSN
23 VPN, that's a special type of internet connection that's used
24 for security, a virtual private network. If any of you have
25 ever had to take your computer home from your company and

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1 you want to connect to your company's network, they'll tell
2 you connect through a VPN. And the reason why they do that
3 is so that people can't hack in to your internet connections
4 and because you're on the public network. So, the VPN
5 provides an additional level of security for your corporate
6 network for people not to hack in, as well as your own
7 computer. Because the MMSC was outside of Sprint's network,
8 they had to add this additional security level to their
9 connections to make sure that they didn't have any problems
10 with hackers getting in to the network or to the MMSC.

11 Q And was that -- the existence of that VPN, was that one
12 of the factors, one of the pieces of information that you
13 considered as part of your analysis as to whether a messaging
14 server is internal or external to the cellular network?

15 A Yes, to me that's not there if the messaging servers are
16 internal. There's no reason for that. When I say internal
17 and internal messaging protocols, those are all just
18 protocols that connect to the different network elements that
19 are not available to the public. So, they can't be hacked
20 that way.

21 Q And as you look at DX-29, do you see the box labeled
22 Sprint NOB?

23 A Just to be clear, did you say 229 or 29, but it's 229
24 just for the record, I guess.

25 Q And I may have said 29, I meant 229. Do you see it on

1 the bottom of 229, the box that says Sprint NOB?

2 A Yes, I do.

3 Q Okay and do you see an SMSC there and an SPS there?

4 A Yes.

5 Q Is it your opinion that that SMSC is internal to Sprint's
6 cellular network?

7 A Yes, as we covered earlier for the SMS, this is again,
8 one of the Bunker sites, the North Bunker -- or one of the
9 core sites that also has the name. And this is where you see
10 the SPS database with the SMSC and there's no VPN connection.
11 That's because they're both together. But when those network
12 elements need to communicate with the MMSC that's external,
13 they have to go through those specialized VPN connections.

14 Q Let's turn to Slide 87, I believe this is one of the same
15 documents we pointed to with respect to SMS, did you look at
16 it with respect to MMS, as well, sir?

17 A Yes.

18 Q And what does DX-12 tell you with respect to Sprint's
19 move from the Syniverse platform to a different MMS solution?

20 A So, now what you see is this scenario or the strategy for
21 moving from the external Syniverse system to inside, commonly
22 referred to as CAP and then put the new functionality in.
23 Other people refer to it as make before break. You just
24 don't want to chop off the old system before you get all your
25 new functionality, but you want to cap it as far as getting

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1 new capacity. Get your new systems in place and then
2 eventually do a graceful hand over and then shut down the old
3 system. What's being shown here is this is, as it says at
4 the top towards the diagrams, Sprint Logical Instate diagram,
5 they're showing what's going to happen after the move the
6 MMSC inside the cellular network. If you look at the bottom
7 box, now you'll see that I have three boxes highlighted out
8 in the Sprint Reston bunker or in their core site. They have
9 the SPS and SMSC, as I had highlighted before, but now
10 they've added the MMSC. So, they've moved that MMSC for
11 multi-media messages in with the other core network boxes
12 into that bunker.

13 Q Did you also review other Sprint technical documents with
14 respect to this transition?

15 A Yes.

16 Q Is DX-219 an example of one of those technical documents
17 and can you explain to the jury what it says?

18 A Yes and so, this document's listing the project and the
19 steps. The one I have highlighted is CDMA, MMSC and the
20 supplier of the MMSC was the company called Acision. It
21 says, "Implement an Acision MMSC within the CDMA network.
22 Aligns with target date and open strategy." So, this
23 statement is saying that they're moving the Acision MMSC
24 inside their core network.

25 Q Is this another document on Slide 90, DX-9 from Sprint's

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1 files, that you reviewed with respect to your analysis of
2 MMS, Mr. Lanning?

3 A Yes, I've highlighted and I've underlined in red some key
4 passages here. The key is, is that the -- for the first
5 highlighted passage, is they're going to move the Syniverse
6 hosted Picture Mail platform to the fully-owned core network,
7 Acision multi-media switching center, the MMSC. And in the
8 background, it says "MMS traffic on two different multi-media
9 message platforms, on that is hosted by Syniverse, the other
10 which is fully-owned in network, Acision MMSC."

11 Q And the reference to fully-owned core network Acision
12 MMSC, what do you understand that to be referring to, sir?

13 A That clearly says to me that Sprint is moving their MMSC
14 into their core network. And this is the MMSC or MMSCs that
15 you're to consider for infringement.

16 Q And going back to DX-12, did you make an adjustment to
17 this slide to show the jury the final end-state of this
18 transition away from Syniverse Picture Mail?

19 A Yes, I tried to hide somewhat the Syniverse up in the top
20 left-hand corner, but I wanted to show you what I was doing
21 so you could see what was being done. After they completed
22 putting the new systems in, the new MMSCs in the core
23 network, the Syniverse or the external MMSC was ultimately
24 shut down. It's no longer being used. And I guess, the
25 other point, again you now have the both types of messaging

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1 servers, the SMSC and the MMSC together, along with the
2 database that they use, the SPS.

3 Q Did you formulate an opinion in this case, Mr. Lanning,
4 as to whether Sprint's accused MMS services infringe Claim 1
5 of the '870 Patent?

6 A Yes and in my opinion is they do not infringe the three
7 asserted claims.

8 Q And by the three asserted claims, do you mean Claim 1,
9 Claim 7 and 113?

10 A That's correct.

11 Q Can you explain to the jury why that's the case with
12 respect to Claim 1?

13 A For the same reasons that I found that the SMSCs were
14 internal to the Sprint network for many of the same reasons
15 that MMSCs are also internal to the Sprint network. And
16 specifically, the cellular network of Sprint. And so,
17 because they are not -- because the MMSC is not external to
18 the Sprint cellular network, they don't infringe the last
19 limitation that I've highlighted in Claim 1. And they don't
20 infringe the first limitation of Claim 1 because, again, if
21 they're not external, they can't meet this limitation and
22 it's like throwing a ball to yourself.

23 Q Are those the two limitations that begin with the word,
24 sending?

25 A Yes, that's correct.

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1 Q Are those the same two limitations to which you referred
2 earlier in your testimony with respect to SMS?

3 A Yes.

4 Q In your opinion, does Sprint's accused MMS messaging
5 services infringe Claim 7 of the '870 Patent?

6 A No.

7 Q Is that for the same reasons that you've just expressed
8 with respect to Claim 1?

9 A Yes.

10 Q In your opinion, sir, does Sprint's accused MMS services
11 infringe Claim 113 of the '870 Patent?

12 A No.

13 Q Is that for the same reasons you've just expressed with
14 respect to Claim 1?

15 A Yes and 112 earlier.

16 Q What are you reflecting on Slide 96, Mr. Lanning?

17 A Again, for the MMS messaging servers of Sprint's that
18 Sprint does not infringe Claim 1, Claim 7 or Claim 113.

19 Q Now, you indicated that you had reviewed many other
20 documents in this case other than the ones that you've
21 presented in this presentation, is that fair to say, Mr.
22 Lanning?

23 A Yes.

24 Q Did you also review all of the documents that Dr. Akl
25 cited?

1 A Yes.

2 Q Now, I'd like to talk to you about a few of those
3 documents, ones that Dr. Akl pointed the jury to in his
4 presentation last week. And I'd like to start with, Mr.
5 Baird, PX-174. Mr. Lanning, I've put PX-174 up on your
6 screen, do you see that, sir?

7 A Yes.

8 Q Okay, Dr. Akl relied heavily on this document in his
9 analysis. Do you agree with that?

10 A I wouldn't use this for my analysis. Other than
11 understanding maybe what an acronym definition was. This is
12 just kind of a glossary of terms to me.

13 Q Is this a Sprint design document based on all of the
14 various design documents that you reviewed in the course of
15 your analysis?

16 A No, again, it's just listing different acronyms and what
17 they mean.

18 Q Let's also look at PX-99, which was another document on
19 which Dr. Akl relied. Do you agree with Dr. Akl's analysis
20 with respect to PX-99, Mr. Lanning?

21 A No, I think there was quite a bit of conversation during
22 direct and then testimony the cross of Dr. Akl about how this
23 diagram was modified. You might have heard it referred to as
24 a snow cone or ice cream cone, something like that. This is
25 the real drawing out of the Sprint document that was in the

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1 Sprint document. And Dr. Akl has taken some key
2 functionality out of that in order to convince you that the
3 messaging systems are not part of the core network. Now,
4 what I'd like to point your eyes to before we go to what Dr.
5 Akl did, is look at right in the center and I'll bet by now
6 you're starting to recognize the letters SPS, that's the
7 subscriber database. That's where all of the messaging
8 profiles for subscribers are stored. And Dr. Akl has said
9 that is the core network element. This is essential, it's a
10 core network element. There's also another core network
11 element on this design, that's referred to as HLR. That's
12 the home location register that we've discussed earlier.

13 Now, Dr. Akl wants to convince you that the
14 messaging network and he calls it a messaging system and if
15 we could probably show the next slide of how he's deleted
16 those. Or it's from --

17 Q The next document, I believe from Dr. Akl's presentation.

18 A -- if it's not this one, it would be one earlier, I
19 think, where he has the top of snow cone.

20 Q I'm not sure I have that one handy, but I'll try to pull
21 it out as you're talking, Mr. Lanning. But with reference,
22 if you could go back one more?

23 MR. BAIRD: To 99?

24 MR. FINKELSON: To 99.

25 Q Do you recall what Dr. Akl did to this diagram?

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1 A Yes, I can just explain and he took out, like I just
2 explained, the SPS and the HLR, to then explain that the
3 messaging servers were not part of the core network. But he
4 deleted and took out some of the key core network elements
5 out of this Sprint diagram in order to convince you that the
6 messaging servers were not part of the core network.

7 Q And I believe you indicated that he referred to it as a
8 messaging network, was that your testimony?

9 A I believe that's how he described it. Again, it's not
10 even the terminology used in Sprint's document. So, to me,
11 that change is very misleading. If you look at this
12 document, for instance and it's messaging, I have an MMSC
13 here. I have an SMSC here, the one on the right is for short
14 messages, the one on the left is the server for the
15 multi-media messages. Then right in the middle, I have the
16 SPS database and I have a home location register. And it
17 shows clearly that the SMSC communicates directly with the
18 home location register. That information is key to
19 understand whether you should believe whether the message
20 centers are internal or external to the network. Again, if
21 you look at Dr. Akl's functionality test, he says the
22 functionality for the SPS is core, here's the diagram, let me
23 clear it up.

24 Q Let me try to clear up those notes. There you go.

25 A Okay, now notice on the top that's just the diagram that

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1 I was referring to. There's no HLR over here anymore, that's
2 a core network element that was on the Sprint diagram. Where
3 did the SPS go that was right in the middle? That's not
4 there anymore either. So, he's trying to show you the
5 Sprint's messaging network, which is not their terminology,
6 it's Dr. Akl's terminology, not Sprint's. And he has deleted
7 out key core network elements out of this drawing to show you
8 or to convince you that the message centers are outside the
9 core network. And he's not showing you that they connect and
10 communicate for almost every message with the SPS database
11 that's right here.

12 Q Do you also recognize the bottom portion of PD-2.69 that's
13 on the screen as another document that Dr. Akl created for
14 purposes of his presentation?

15 A Again, I believe Dr. Akl is cherry-picking various
16 documents to make his point. This document is for the
17 network design for a whole different function that we haven't
18 discussed much and I haven't discussed with you at all, is the
19 Triple AAA function. It's the authentication and accounting
20 type function. And that document that he brings this from is
21 missing a lot of network elements because it's only focused
22 on the Triple AAA function of authentication and
23 authorization and accounting. And so, it's missing some, but
24 that's what he's using at the bottom to show the core network
25 elements. Again, I think these are very misleading how he's

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1 modified these diagrams that are in the Sprint documents.

2 Q Do you recall and we'll move off of this and head back to
3 Slide 98, Mr. Baird, of the slide deck. Do you recall Dr.
4 Akl providing testimony upon which Comcast damages expert,
5 Ms. Riley, relied with respect to the number of steps
6 involved in certain SMS and MMS call flows?

7 A Yes.

8 Q And what have you shown on Slide 98 from PX-10, which was
9 the document upon which Dr. Akl relied?

10 A This looks like it has a lot of detail, but there are
11 just a few key points for this. Now, this is a slide that
12 Dr. Akl showed you of what he used to figure out the number
13 of primary steps that are involved or the infringing steps,
14 so this is -- we referred to this as one of two things, this
15 type of diagram. It's either a message flow diagram because
16 it shows the messages that go between the different network
17 elements or the systems in the network. Or it's called the
18 ladder diagram because some people see it looking like a
19 ladder. Now, when we do the networks, I've had hundreds, if
20 not thousands of these that we keep updated for the network.
21 Any time you have to make a change, every little bit, every
22 message has to be worked on to make sure everything is
23 correct. So, the systems will work correctly together or we
24 have upset customers in the network when something doesn't
25 work. Now, if you look at this drawing, this is a higher

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1 level drawing and this was used by Ms. Riley to compute how
2 many of the steps involved in a message processing would be
3 infringing steps. So, I look at it as a ratio. If we're
4 going to just talk about mathematical terms for a minute, the
5 numerator is the number of infringing steps, the denominator
6 would be the total number of steps involved. And so that's
7 used to calculate how much of the messaging system is
8 infringing.

9 Q And when you say that's used, do you mean by Ms. Riley in
10 her damages analysis?

11 A That was used by Ms. Riley in the damages that Dr. Akl
12 gave her these message counts.

13 Q And set aside for a moment, the issue of whether steps
14 are infringing or not infringing and just focusing on the
15 total number of steps that Dr. Akl cited for purposes of Ms.
16 Riley's analysis. Do you think PX-10 sets forth accurately
17 the number of steps that are required in sending an MMS
18 message for the example we have up on the screen?

19 A No, this is very inaccurate and misleading if you're
20 counting all the steps, because this document wasn't
21 concerned about counting all the messages and steps. It was
22 written for a different purpose. So, there's many more
23 steps involved than what Dr. Akl has counted and provided to
24 Ms. Riley for damages.

25 Q And I'm glad you made that clarification. You're not

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1 speaking to inaccuracies within the document itself, you're
2 talking about the fact that it's missing many steps that are
3 not in the document?

4 A That's correct. Again, I believe I would refer to it as
5 cherry-picking a document that would minimize the number of
6 total steps, so that the damages would look larger.

7 Q Did you review Mr. Hoelzle's testimony to this jury with
8 respect to diagrams that he drew in DX-230, showing the steps
9 involved in actually sending an SMS and MMS message from one
10 handset to another?

11 A Yes and before you panic, I'm not going to walk you
12 through every one of these steps. But this gives you an idea
13 of how many steps are really involved with processing a
14 message. So, every time you send an MMS message, this is
15 what happens at the network for every one of them. And so
16 there's a lot of steps here is the point of this slide.

17 Q Do you believe that all of the steps in the flow from one
18 handset to another for SMS and MMS should be weighted
19 equally?

20 A Well, that's another point, is that when you look at
21 these different messages and steps, you need to look at --
22 instead of weighing them all equally, there's an expense to
23 the network resource. And the most valuable part of the
24 network resource is what we refer to as the radio access
25 network or the wireless interface between the base stations

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1 and the subscribers. That's where the network operators have
2 to pay for Spectrum. They have these bids, they pay a lot of
3 money and it's very limited and we're always trying to get
4 more and more capacity out of this wireless radio network.
5 And so, the steps that go over between the mobile phone and
6 the base station are much heavier or much more expensive to a
7 network than the steps between some of the other network
8 elements.

9 Q We've heard some talk in this case, primarily in opening
10 argument from Comcast about speed as it relates to the '870
11 Patent. My question for you is this, as you look at these
12 steps that are involved in sending an SMS and MMS message in
13 DX-230, would this all go faster if Sprint had an external
14 messaging server?

15 A No, I found that whole discussion confusing. After
16 working on networks like this all my adult life, it's just
17 the opposite. If you add an external messaging server,
18 you're now adding more complexity with more messages,
19 different protocols. Again, relating it back to the laundry
20 scheme, it's like arguing that it's more efficient to go out
21 of the apartment to the laundromat than just having a washer
22 and dryer in your own apartment. It, to me, is that basic.
23 If you're adding external functionality, you're not speeding
24 up the network, you're slowing it down.

25 Q I want to end, Mr. Lanning, with the last item on your

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1 list labeled Sprint/Comcast contract in your Slide 101. And
2 I've called up a picture of DX-16 on Slide 102. Do you have
3 experience with contracts like DX-16, sir?

4 A Yes, with and that should be clear, I'm not a lawyer, so
5 I don't write the contracts, but technical contracts between
6 technical companies require a lot of input from the technical
7 people. And I have been part of the technical liaison or
8 technical group to make sure that the technical terminology
9 in a contract is correct.

10 Q And did you review the technical terminology in DX-16?

11 A Yes.

12 Q And in your experience in agreements such as this, is it
13 important to the parties to get the technical terms right?

14 A The technical terms are critical that they be correct and
15 both parties agree to it. These technical companies are very
16 sophisticated. They know the terminology. They want to make
17 sure it's very clear between the two companies what's in the
18 contract, what's outside of the contract. It ends up who
19 pays for what, what they don't pay for. So, I have found
20 that I have had a lot of emphasis by the lawyers that I've
21 worked with, over my career, to make sure darned sure this
22 terminology is correct and we can live with it.

23 Q From a technical perspective?

24 A From a technical point of view, yes.

25 Q And do you understand DX-16 is a contract between Sprint

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1 and Comcast?

2 A Yes.

3 Q What technical terms, in particular, did you look to in
4 DX-16?

5 A Well, the technical terms that were relevant for my
6 analysis, I've included on the page. And one of them is core
7 network definition. The next one is the definition for SMS.
8 The next one is the definition for Sprint network.

9 Q And why did you find those definitions to be important?

10 A Because the core network is at issue here in this case,
11 what's in the core network, what's in the Sprint's core
12 network and what is not. Is a messaging server inside
13 Sprint's core network or is it external? Right here, the two
14 parties both Comcast and Sprint have agreed that the core
15 network means the wireless voice SMS and data service
16 infrastructure that provides connectivity and transmission
17 via the Sprint network.

18 So I've heard a lot of different questions about
19 different network elements, but the thing that is key in my
20 mind is that the SMS infrastructure is included and clearly
21 agreed both parties as being part of the Sprint core network.

22 Then I go down and look to see what is meant by SMS,
23 that's the second definition. And skipping to the
24 highlighted portion, that's Sprint's short message gateway
25 and service center. So that is the short message service

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1 center or messaging server that is being accused in the
2 claims of the patent.

3 Then the Sprint network, what does it mean by the
4 Sprint network, that means the CDMA network owned and
5 operated by Sprint.

6 Q All right. As you know, Mr. Lanning, because Comcast is
7 the plaintiff in this case, Dr. Akl is going to -- he's going
8 to get the last word, he'll get to come back up on the stand.
9 So just what would you like to leave this jury with in terms
10 of summarizing your conclusions with respect to all of the
11 accused SMS and MMS services in this case?

12 A Dr. Akl and I have presented you with two very different
13 analysis approaches. Dr. Akl has focused you in on
14 functionality, just look at functionality, don't look at the
15 other functions -- or issues. I have tried to show you a
16 holistic approach, look at all the information to determine
17 whether a message server is external to Sprint's cellular
18 network or internal. I'm not saying that if you believe Dr.
19 Akl's approach or take his as being the most accurate is
20 functionality, he's correct and we infringe, because even
21 when you use Dr. Akl's method of just looking at
22 functionality it is inconsistent, there's a bunch of
23 inconsistencies.

24 And so Dr. Akl says just look at functionality.
25 Well, what are some of the key functions we've talked about?

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1 We have the SPS database, right, that the message servers
2 always query to find out, then we have the message server.
3 So just look at functionality: message server does certain
4 functions, the database does others. The database just sits
5 there being -- waiting for a query, looks up the data and
6 sends it back to the messaging server.

7 So if I'm looking at functionality and Dr. Akl says
8 the SPS is essential and its core network functionality, why
9 isn't the message server that does the querying, that gets
10 the response and does all the routing in the response? So if
11 you look at wherever he says functionality only, think to
12 yourself does that make sense. For instance, again going
13 back to my washer and dryer, if he says the dryer is
14 essential and you can only look at functionality, then you'd
15 say, well, doesn't it make sense that the washer go with the
16 dryer? It's the same thing but I'm using a bunch of
17 technical terms.

18 Or you can look and say there's no way I can figure
19 out just on functionality whether the washer and dryer are in
20 the apartment by just thinking about washing clothes and
21 drying clothes, I need to look at other information. I need
22 to look at who owns, where it's physically at, what kind of
23 connections they have, who pays for the water and the power,
24 and when you look at all of that I think you can clearly see
25 that these messaging servers are inside Sprint's cellular

1 network.

2 Well, why did he come to that point? This is the
3 key question. You know, we all know when the teacher always
4 would say this is going to be on the test, everybody would
5 pick up their pads and write? Well, this is going to be on
6 the test, this is for what you need to consider in my mind.
7 Are the Sprint messaging servers internal to Sprint's
8 cellular network or are they external? That's the key
9 question you need to answer in order to determine whether
10 Sprint infringes or not. And I believe I've shown you both
11 using Dr. Akl's analysis method and mine that when you
12 accurately assess where these servers are at you'll find that
13 they're inside the Sprint cellular network and therefore they
14 don't infringe.

15 Now, do -- I put up this slide, it's a common slide
16 that I've seen and I like. This is an actual patent for a
17 soccer ball and I -- the claims are a lot more detailed than
18 that, but if you look down the claims -- and this is what I
19 think I've heard referred to as an all-elements test and this
20 reinforces the point that was made early, all of the
21 limitations need to be met in order to infringe.

22 And so if you look down without looking at the
23 football, you could say is a football made of leather? Yes.
24 Is it stitched together? Yes. Is it filled with compressed
25 air? Yes. And then you get down to the last limitation and

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1 it says it's round, and that's where you decide it's not
2 infringed. This is the same way with these asserted claims
3 that Comcast is asserting against Sprint. Sprint's messaging
4 servers are not external to Sprint's cellular network.

5 Q And just in closing, Mr. Lanning, I believe you've
6 included as your last slide, slide 107, a summary of your
7 non-infringement opinions, can you just read those to the
8 jury, please?

9 A Again, that's probably another thought I should have
10 included. When you hear all the dates and times, I think
11 it's important for history, it's important for how the
12 standards evolved, but the infringement period that -- or the
13 alleged infringement period that needs to be considered is
14 from 2006 to the present, not 1999, not 2001, but 2006 to the
15 present for the Sprint's network. And when I look at all of
16 that, it's my opinion and strong opinion that Sprint's
17 messaging servers, both the SMSCs and the MMSCs do not
18 infringe claims 1, 7 and 113.

19 Q Thank you very much, Mr. Lanning.

20 (Pause.)

21 THE COURT: You may cross-examine, Mr. Goettle.

22 MR. GOETTLE: Thank you, your Honor.

23 MR. FINKELSON: Before Mr. Goettle starts, your
24 Honor, I do have a number of exhibits to move into evidence
25 that are un-objected to. My preference would be to let Mr.

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1 Goettle proceed with his examination and I can just do that
2 at the end when it's not a bother to the jury.

3 THE COURT: That's my preference.

4 CROSS-EXAMINATION

5 BY MR. GOETTLE:

6 Q Good afternoon, Mr. Lanning.

7 A Good afternoon, Mr. Goettle.

8 Q I'm going to take this down.

9 (Pause.)

10 Q Sir, we've met before, right? I took your deposition for
11 two wonderful days in Dallas?

12 A That's what I was thinking, two wonderful days, yes.

13 Q They were fun for you, they were fun for me, weren't
14 they?

15 A Yes.

16 Q Sir, you're a professional expert witness, correct?

17 A I've been asked that question before and I guess I would
18 characterize it as I try to be as professional as I can as
19 much as I can, but I do other things besides doing expert
20 witness work.

21 Q But in terms of employment, being an expert witness in
22 litigation like this has been your sole employment since
23 2005, correct?

24 A No, that's not correct.

25 Q That's not correct?

1 A No.

2 Q Okay, we'll come back to that.

3 Sir, you submitted an expert report in this case
4 with respect to non-infringement, your non-infringement
5 opinions?

6 A Yes, that is correct.

7 Q And in that report you set forth every reference, every
8 document that you considered in rendering your opinions,
9 correct?

10 A I believe so, I tried to do my best. There's a lot of
11 documents in there, so I tried to include all those
12 documents, yes.

13 Q And you're not aware of any document that you relied on
14 in forming your opinions that was not put into your list in
15 your report?

16 A I believe in my report I list all of the different
17 documents I've reviewed and then I also list all of the
18 documents that Dr. Akl has also cited as well, because I read
19 all of those. So with that clarification, I would agree with
20 your statement.

21 Q Okay, thank you. So let's just start from first
22 principles to make sure that everybody is abundantly clear on
23 what the target is that we're shooting at. The issue in this
24 case essentially is what is Sprint's cellular network; do you

1 agree?

2 A Not necessarily. I think that the key issue is whether
3 the messaging servers are inside or external to Sprint's
4 cellular network, but if I look at that I would agree that
5 part of that is defining what Sprint's cellular network is.

6 Q Just part of it is defining what Sprint's cellular
7 network is?

8 A Well, you have to look at the messaging servers and
9 determine whether they're external or internal. So it isn't
10 sufficient just to determine what Sprint's cellular network
11 is. Again, it's just a clarification.

12 Q Well, I think it's an important one, because I'm
13 concerned it might be confusing.

14 MR. GOETTLE: Mr. Dyer, can you put up the claim
15 construction sheet that the jurors have in their jury
16 notebook?

17 (Pause.)

18 MR. GOETTLE: And can you expand the definition of
19 cellular network?

20 BY MR. GOETTLE:

21 Q You've seen this before, this construction of cellular
22 network, sir?

23 A Yes. And I even included it on one of my slides next to
24 the cellular network and walked through all of the components
25 of this.

1 Q Okay. And actually just stepping back, you've been --
2 I've seen you, you've been here for most of the trial; maybe
3 not every witness, but you've been here for most of it?

4 A Yeah, that's fair.

5 Q You were here for opening arguments and you were here for
6 Dr. Akl's testimony?

7 A Yes, definitely those.

8 Q Okay. And do you agree that the cellular network
9 construction here boils down to three, that there are three
10 main components that make up a cellular network according to
11 the patent. Number one, there's the wireless terminal; do
12 you agree with that?

13 A Yes, yes.

14 Q Okay. Number two, there's the base station system?

15 A Yes.

16 Q Okay. And number three are core network elements. Do
17 you see that?

18 A Yes.

19 Q Okay. You agree that those are the three things that
20 make up a cellular network according to the Court's
21 construction in this patent?

22 A Yes.

23 Q Okay. So the question for the jury is whether Sprint's
24 messaging servers are core network elements or not, correct?

25 A Yes. And as the Court has stated in the claim

1 construction for the core network elements, they've said
2 "which may include" -- which I'm sure you're going to ask
3 does that necessarily include them, make it mandatory; no,
4 it's optional, so it says they could either be included or
5 not be included -- "subscriber databases such as a home
6 location register, mobile switching centers, packet switching
7 nodes, and messaging servers."

8 Q Okay, sir, so you agree that the fundamental question for
9 the jury to decide in this case is whether Sprint's messaging
10 servers qualify as a core network element under this
11 construction?

12 A Yes, that's fair, yes.

13 Q That's fair? And so if they don't, if the jury finds
14 that Sprint's messaging servers are not -- do not qualify as
15 a core network element, then they are automatically external,
16 to use the claim language, external to the cellular network,
17 correct?

18 A If they are -- if the jury finds that the messaging
19 servers are not part of the core network, then they are not
20 part of Sprint's cellular network.

21 Q Because they are external to the cellular network?

22 A Because they would not be included in the core network.

23 MR. GOETTLE: Mr. Baird, can you leave this up and
24 put up PX-2? And I want to go through the claims, to Claim
25 1.

1 (Pause.)

2 MR. GOETTLE: And in the third line down can you
3 highlight "Messaging server external to the cellular
4 network"?

5 BY MR. GOETTLE:

6 Q Mr. Lanning, my question is, if the jury finds that
7 Sprint's messaging servers are not core network elements of
8 Sprint's cellular network, then those messaging servers are
9 external to the cellular network, correct?

10 A Those would be external to the cellular network, but I
11 wouldn't agree that that's the only thing they need to find
12 for the infringement or non-infringement. But I would agree
13 with this point: if a messaging server, if the jury finds
14 that a messaging server is not part of Sprint's core network
15 as the Court has defined, then it would not be part of the
16 core network or Sprint's cellular network, so therefore it
17 would be external.

18 Q I actually want to be very precise and I'm sure you're
19 trying to be very precise too, because what you just said I
20 don't think is being precise. So let me try again. If the
21 jury finds that Sprint's messaging servers are core network
22 elements of Sprint's cellular network, then those messaging
23 servers are part of the cellular network -- I'm sorry, are
24 external to the cellular network?

25 Do you want me to try it again?

1 A I think so, because you prefaced it with being precise.

2 So --

3 Q Okay. Let me --

4 A -- I guess if we're being precise, we probably
5 shouldn't --

6 Q I think it's fair, because I think this is an important
7 point that we need to make sure we get down. And maybe I
8 should step back. Your last answer referred to a core
9 network of Sprint and I want to make sure we're being very
10 precise. If the jury finds that Sprint's messaging servers
11 are core -- are not -- excuse me, are not core network
12 elements of Sprint's cellular network, then that means those
13 messaging servers are external to the cellular network?

14 A Yes, I would agree with that.

15 Q Okay. And that is the sole non-infringement opinion you
16 are putting forward to the jury today that Sprint's -- in
17 your opinion, Sprint's messaging servers are core network
18 elements of Sprint's cellular network and therefore are not
19 external?

20 A Well, that is part of -- that is the main emphasis and I
21 don't want to mislead, that is the main argument I am making
22 is that the messaging servers are internal to Sprint's
23 cellular network, therefore they're not external, but there's
24 other considerations to make too about what about the SPS and
25 these other subscriber databases, are they really internal or

1 external to the network. So it's not just as easy as saying
2 just the messaging servers. The subscriber databases are
3 part of the Court's construction too, so those need to be
4 considered whether they're part of the core network, which
5 would then make them part of the Sprint cellular network or
6 not.

7 Q At no point today during your direct examination, sir,
8 did you opine to the jury that Sprint's subscriber databases
9 are not core network elements of Sprint's networks, correct?

10 A No, but I recall multiple times showing the relationship
11 between that SPS database and either an SMSC or an MMSC. And
12 so I'm simply saying, if you find that the messaging servers
13 are not part of the core network, then should the subscriber
14 databases be part of the core network for all the same
15 reasons I showed that they're always together.

16 Q How about the HLR? You didn't just mention the HLR. Do
17 you agree that the HLR in Sprint's network is a core network
18 element of the network?

19 A Yes, and I don't believe that's been disputed.

20 Q Okay.

21 MR. GOETTLE: Can we -- do you have Mr. Lanning's
22 slides loaded up? Can you go to slide 12?

23 (Pause.)

24 BY MR. GOETTLE:

25 Q Your laundromat analogy, right, that's what we're looking

1 at on slide 12?

2 A Yes.

3 Q And as you were presenting this analogy, as I understand
4 it, what you're saying is, look, if you can do the laundry at
5 home, then the washer and dryer, that would mean they're
6 internal, or you could do them at the laundromat and that
7 would be external, and to you this is a direct parallel to
8 the claims of the patent. Did I summarize that right?

9 A I think that's fair.

10 Q Okay.

11 A When we get down into more details, I'll clarify if I
12 need to.

13 Q Okay, but the question that the jury would be asking if
14 they're going to follow this analogy would be, sir, wouldn't
15 be what makes up the apartment -- or are we looking at an
16 apartment building? What are we -- is this an apartment
17 building that we're looking at?

18 A Yes.

19 Q Okay. So what we would be trying to decide is what is
20 the apartment, what is core to the apartment, and then we
21 would be looking at is the washer and dryer, are they core
22 elements that make up the apartment, isn't that the right
23 analogy?

24 A Yes, and I think that follows with my analogy. I would
25 look at the apartment and if we're trying to decide, as I

1 stated and explained, are the washer and dryer inside or
2 outside, meaning internal or external to the apartment, you
3 need to define what the apartment is. So now if the Court
4 gives a definition of what the apartment is, it would say the
5 apartment is the walls and the door and it may include a
6 washer and a dryer. Now, that Court's construction doesn't
7 make it mandatory that a washer and dryer may be in the
8 apartment, but it says they may, which means it also means
9 they may not be.

10 Q Actually, I would submit, sir, wouldn't you agree that
11 drawing the analogy to the Court's construction it would be
12 the apartment includes core elements of an apartment, right,
13 that's what we would be trying to decide?

14 A Okay. And then what would you define for the core
15 elements?

16 Q Exactly, what would you define for the core elements,
17 that's the question; what is essential to have an apartment?
18 And the question for the jury would be then is a washer and
19 dryer essential to have an apartment --

20 A Well --

21 Q -- that's the question, right?

22 A -- no, it isn't essential. The word essential is not in
23 the Court's construction. Dr. Ak1 kept adding that word, if
24 you remember. If you look at the Court's construction,
25 there's no word essential in there. They keep adding the

1 word essential, but let's look at the construction to follow
2 that on. Since it's my analogy, I guess I get to say how
3 it's set up. So if you look at the apartment to be similar
4 to the cellular network, then you would say the apartment
5 includes a stove and a refrigerator, and it includes core
6 elements that may include a washer, dryer, microwave, TV.
7 And so then you need to decide are the washer and dryer in
8 the apartment.

9 Q So you disagree that a synonym for the word core is
10 essential?

11 A I disagree, because core has a different meaning and the
12 Court's listed what the core network elements are and the
13 word essential is not included.

14 MR. GOETTLE: Can you put the construction back up,
15 please?

16 BY MR. GOETTLE:

17 Q I believe you just testified that the Court has listed
18 what the core network elements are, but that's actually not
19 correct.

20 A Sorry, I misspoke --

21 Q Okay.

22 A -- which they may be. If that's your clarification you'd
23 like me to make, I would agree with that.

24 Q I think so --

25 A It's which one and I used the same example for the

1 apartment, they may be, they don't have to be. But the point
2 I was really trying to make is the word essential is nowhere
3 in this construction.

4 Q Okay, but the word core is in the construction?

5 A The core and they're very different meanings.

6 Q They are, okay. So in coming up with your opinions in
7 this case, you looked at seven different factors for
8 determining whether a messaging server qualifies as a core
9 network element, correct?

10 A I wouldn't characterize it that way. After over a two-
11 days deposition it was pulled out, what factor did you look
12 at, what things did you look at, and so I named one factor
13 after another. And then after the factors were listed, then
14 there were seven that were listed. But it isn't like I had a
15 seven-factor test and I went and checkmarked by each, I just
16 looked at a holistic view. Many of the same things I
17 described in my direct testimony were considered as these
18 factors or indicators.

19 Q So I'm not sure if that was a yes or a no. You looked at
20 seven different factors in determining whether Sprint's
21 messaging servers were core network elements, correct?

22 A I didn't have a seven-factor test, but there were seven
23 different types of characteristics that I looked at that we
24 walked through over a two-day period of all the different
25 information I considered.

1 Q And you called those characteristics factors -- would you
2 rather I call them characteristics?

3 A It doesn't really matter. I just don't want to mislead
4 the jury thinking that I had a seven-factor test that I
5 checked off for every feature. I just considered a holistic
6 view, here's all the different factors. For instance, as I
7 explained, if you look at the washer and dryer, again going
8 back to that simple analogy, I would look at, okay, what
9 functions do they perform, is that enough? Okay, what types
10 of interfaces or connections do they have? Who owns them?
11 Who pays for the power? Who pays for the place where they
12 reside? And so I looked at a holistic view, that's the
13 factors we're referring to. We can get into all the
14 technical definitions, but in essence it was that holistic
15 view, what's all the information tell me?

16 Q Okay. And in that holistic view you looked at seven
17 characteristics or factors?

18 A Yes.

19 Q Okay. And that -- what terminology would you like me to
20 use, characteristics, factors or you don't care?

21 A I don't care.

22 Q Okay. So in that seven-factor holistic analysis that you
23 performed, that's an analysis that you came up with for the
24 purposes of this litigation?

25 MR. FINKELSON: Objection, your Honor. The Court

1 has already ruled that Mr. Lanning did not conduct a seven-
2 factor analysis, so I object to Mr. Goettle characterizing it
3 as such. And if we need to address it at sidebar, I'm happy
4 to.

5 THE COURT: Well, there were factors that were
6 included and when you add them up, apparently there's seven
7 of them. I don't think this is, quote, "a seven-factor
8 test," but it's up to the jury to decide. I've ruled -- I've
9 written so many opinions in this case, you've tried to keep
10 us busy. And I note that the lineup is not exactly fair,
11 there are about 30 of them and there are two of us, me and
12 one law clerk, and we've done our best to keep up. I don't
13 remember that opinion --

14 MR. FINKELSON: I simply object to the
15 characterization of it as a seven-factor analysis.

16 THE COURT: Well, he's not going to refer to it as a
17 seven-factor test.

18 MR. GOETTLE: I actually have not mentioned the word
19 test once since I've been standing up here.

20 MR. FINKELSON: And the word was --

21 MR. GOETTLE: Analysis --

22 MR. FINKELSON: -- was analysis, which was also
23 addressed and disposed of. So I would object to that.

24 THE COURT: Yes, I resolved that and I -- in my
25 opinion I said that it was appropriate for Mr. Lanning to

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1 express his views on factors, regardless of what you call
2 them, to you as a jury for your decision.

3 MR. FINKELSON: Thank you, your Honor.

4 THE COURT: And now, Mr. Goettle, you can go back to
5 your factors or characteristics.

6 MR. GOETTLE: Thank you, your Honor.

7 THE WITNESS: And so if there was a question
8 pending, I've totally lost it, so you'll have to re-ask it.

9 BY MR. GOETTLE:

10 Q I will repeat it, that's fine. The seven-factor
11 holistic, I want to use the word analysis -- does that offend
12 if I use the word analysis?

13 A No.

14 Q Okay. This seven-factor holistic analysis that you came
15 up with, you came up with that for the purposes of this
16 litigation?

17 A That's right, based on my over 30 years of experience of
18 how you determine whether something is inside a cellular
19 network or not.

20 Q Okay. And that seven-factor analysis that you came up
21 with for the litigation, you didn't pull it from any book?

22 A I didn't need to. I've performed this analysis for a
23 long time and built networks. I didn't need to read any book
24 because I've lived it for over 30 years building these
25 networks. When you live something every day, you don't need

1 to go look it up in a book.

2 Q And you have never applied these factors in the same way
3 as you were doing in this case?

4 A I don't understand your question, if you could ask it a
5 little differently. I just don't know what you're trying to
6 get to.

7 Q In your expert work you have never -- which has started
8 in 2001, is that correct, your work as an expert?

9 A Approximately 2000, 2001.

10 Q Okay. And in that work you have never applied these
11 seven factors in the way that you're applying them for this
12 case?

13 A I've never had a case like this one where there was the
14 construction like it is or this whole issue about the
15 messaging server being external or internal. So I haven't
16 applied those factors to other legal cases, but like I said
17 I've worked day in, day out for many years with hundreds of
18 engineers, sometimes lecturing, sometimes correcting them to
19 think functionally, then to think logically and then to think
20 physically. Sometimes engineers want to jump from functions
21 to figuring out how many systems they need and you have to
22 stop them and get their thinking right, so that you have an
23 orderly process. So again, this is something that I have
24 tried to educate a lot of the engineers that have worked for
25 me for over 30 years.

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1 Q Okay. And so I'd like to make it abundantly clear what
2 these seven factors are that we're talking about, is that --

3 THE COURT: Well, before you do --

4 MR. GOETTLE: Yes.

5 THE COURT: -- maybe you can regroup and we'll take
6 a ten-minute recess. It's about 12 minutes after 3:00 and
7 we'll recess for ten minutes.

8 (Jury out at 3:12 o'clock p.m.)

9 THE COURT: You may step down, Mr. Lanning. We're
10 in recess for ten minutes.

11 (Court in recess; 3:13 to 3:40 o'clock p.m.)

12 (Jury in at 3:40 o'clock p.m.)

13 THE COURT: Be seated, ladies and gentlemen. We've
14 had, quote, "weather-related delays." I've been trying to
15 figure out how we should proceed. We'll wait until day end
16 to get a last-minute weather report and then decide. I have
17 my iPhone just in case, so that we can be sure to be up to
18 date on the weather.

19 This is not involved in the suit, is it?

20 (Laughter.)

21 MR. GOETTLE: Your Honor, you texted a Sprint --

22 MR. FINKELSON: Unless you send an SMS message on
23 it, your Honor.

24 (Laughter.)

25 THE COURT: No, I want to send an MMS message.

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1 MR. GOETTLE: Well, that would count too, just to be
2 clear.

3 THE COURT: All right, back to the cross-
4 examination.

5 BY MR. GOETTLE:

6 Q So, Mr. Lanning, what I'd like to do is maybe, hopefully
7 as quickly as we can, is I just want to jot down the seven
8 factors, hopefully in a legible way, so that we all know what
9 we're shooting at. Do you want me to -- I don't know if you
10 recall all seven, but I think number one was the patent; does
11 that sound right?

12 A Yeah, you're asking the questions. So, yes, the patent
13 is definitely one of the factors.

14 Q Okay. Would it make sense to put that first?

15 A Whatever you want to do.

16 Q Sir, would it --

17 A I don't know that there's any specific order. Like I
18 said, it wasn't an ordered test, it was different
19 characteristics I looked at. So --

20 Q Well --

21 A -- I didn't have a specific order in mind other than
22 starting with the patent and standards, as I explained to the
23 jury --

24 Q Okay.

25 A -- then to the documentation; those are the three obvious

1 ones.

2 Q Okay, I'm going to mark this piece of paper Plaintiffs'
3 Drawing 2. And I just want to put a title on the page so
4 that we remember what this was before. Do you have a
5 preference? Can I call it Mr. Lanning's holistic factors?

6 A I'd call it characteristics.

7 Q Okay.

8 A I think factors is really more of your word, these are
9 just characteristics that I look at.

10 Q Mr. Lanning's -- holistic?

11 A Yes.

12 Q -- you had to pick a big word -- character -- oh, man,
13 how do you spell --

14 A C-h-a-r-a-c-t-e-r-i-s-t-i-c-s.

15 Q C-h-a-r-a-c-t -- characterizations, that's the word?

16 MR. FINKELSON: Characteristics.

17 THE COURT: He said characteristics.

18 MR. GOETTLE: Thank you. Sorry. I think I got it.

19 THE WITNESS: Okay.

20 BY MR. GOETTLE:

21 Q Okay. So number one, you look at the patent, and in this
22 case would it be more accurate to say you look at the Court's
23 claim construction?

24 A The patent in conjunction with the Court's claim
25 construction.

1 Q Okay if I just write patent and claim construction?

2 A Yes.

3 Q Number two --

4 A Standards.

5 Q The CDMA-2000 standard?

6 A I looked at both sets, but -- so I would say just
7 standards --

8 Q Okay.

9 A -- but I compared both the ANSI and CDMA-2000 standards.

10 Q Standards. Number three?

11 A That would be documentation. What I mean by
12 documentation is Sprint's design documentation and
13 documentation by Sprint's witnesses. I kind of grouped
14 documentation to be deposition testimony as well as Sprint's
15 documents and other documents.

16 Q I think the way you -- well, how about, does it sound
17 right that it would be how the network operator describes the
18 network?

19 A That's part of it, but I put it in a big category of
20 documentation --

21 Q Okay.

22 A -- by the operator, by Sprint.

23 Q Okay. So how about Sprint's documentation?

24 A Yes.

25 Q Okay.

1 (Pause.)

2 A Then the next one, one of the other ones that I recall
3 would be interfaces.

4 Q Protocols and interfaces?

5 A I missed the first word.

6 Q Protocols?

7 A Protocols and interfaces, how the components communicate
8 with each other.

9 Q Number five, operation and control?

10 A Right. Who operates it, who does the daily care and
11 feeding, as I described earlier.

12 Q Who operates it, is that the way I should --

13 A Who operates it.

14 Q Okay. Who owns it?

15 A Ownership is one as well.

16 Q Seven is, how would you like to word it, relative
17 geography, relative location?

18 A Physical location is the way I --

19 Q Physical location.

20 (Pause.)

21 Q Okay. So just so the record is clear, we just wrote down
22 on Plaintiffs' Drawing No. 2 seven characteristics that you
23 looked at in determining whether Sprint's messaging servers
24 qualified as core network elements of Sprint's cellular
25 network, correct?

1 A That's one of the reasons I looked at the documents and
2 one of the main reasons, but there were other reasons I
3 looked at the documents when I did all this work. I had a
4 lot of other things in my non-infringement report, but these
5 are the characteristics I looked at to determine what was
6 Sprint's cellular network and what was Sprint's core network,
7 at least that much, yes.

8 Q And specifically these are the seven characteristics that
9 you looked at in trying to determine whether Sprint's
10 messaging servers qualified as core network elements of
11 Sprint's cellular network?

12 A That's one of the things I was looking at. Like I said,
13 my infringement report or my non-infringement report covered
14 a lot of other aspects, we've only introduced one of those to
15 the jury.

16 Q Okay. You had other things in your report?

17 A There were other reasons that I was stating in my report
18 for non-infringement --

19 Q Okay.

20 A -- other than just this one point.

21 Q But we didn't hear any of those other ones on your direct
22 exam?

23 A I'm just clarifying the question you're asking me, but we
24 didn't hear those on the direct.

25 Q Well, can you answer my question yes or no? I just want

1 to make the record clear so that everybody knows. These are
2 the seven -- you applied these seven holistic characteristics
3 in forming your opinion that Sprint's messaging servers are
4 not -- are -- excuse me, are core network elements of
5 Sprint's cellular network?

6 A I considered all seven of these different characteristics
7 to determine, to make an accurate analysis of whether the
8 Sprint's messaging servers were either inside or outside its
9 core network.

10 Q Okay. And in your opinion all seven, all seven of these
11 need to be considered in determining whether an element
12 qualifies as a core network element?

13 A No, I didn't say that. I just considered all those and
14 then there's different ways depending on the situation.
15 Sometimes one factor or characteristic might over-weigh or
16 outweigh the other one. Like ownership for instance,
17 sometimes that matters, sometimes it doesn't, it depends on
18 what document I'm looking at and where it's at.

19 Q Okay. Do all of these factors, in your opinion, need to
20 be considered in determining whether an element is --
21 qualifies as a core network element?

22 A I know that I considered all of these, but I haven't made
23 it in my mind mandatory that all of them need to be
24 considered. Like I said, it just depended on the drawing, it
25 depended on the design document and the situation.

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1 Q I'd like to hand --

2 MR. GOETTLE: -- your Honor, may I approach the
3 witness to hand him his deposition testimony?

4 THE COURT: Yes.

5 (Pause.)

6 BY MR. GOETTLE:

7 Q Sir, I've just handed you a document that contains your
8 testimony from the first day of your deposition, which took
9 place on March 3rd, 2016; do you see that?

10 A Yes.

11 Q Okay. And can you turn to page 58?

12 MR. FINKELSON: Objection, foundation, your Honor.
13 I'm not sure that there's been a question asked as to
14 which --

15 MR. GOETTLE: I'll re-ask the question so the record
16 is clear, your Honor.

17 BY MR. GOETTLE:

18 Q Sir, in determining whether an element is -- qualifies as
19 a core network element do you have to look at all of these
20 factors in reaching that determination?

21 A As I just answered, I considered all of these factors and
22 I would consider them differently depending on the document
23 that I was looking at. For instance, the Picture Mail
24 document had it clearly the Picture Mail MMSC outside,
25 external, owned by a different company, so I didn't need to

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1 weigh all of the factors, it was obviously external to me.

2 Q So can you look at your testimony at the top of page 51
3 at line 1?

4 A You said 58 earlier.

5 THE COURT: 51?

6 MR. GOETTLE: I'm sorry, 58. I apologize.

7 BY MR. GOETTLE:

8 Q 58 --

9 A Sorry --

10 Q -- line 1?

11 THE COURT: Well, why don't you direct him to the
12 question first.

13 MR. GOETTLE: Okay, sure.

14 BY MR. GOETTLE:

15 Q 57, line 20, do you see that?

16 A No, I'm lost. You told me --

17 Q I'm sorry --

18 THE COURT: Page 57 --

19 THE WITNESS: -- let me explain. There's a main
20 page number at the bottom of each page and then there's four
21 pages of deposition on each page that are different page
22 numbers. So I don't know which one you want to give me, but
23 I don't know --

24 MR. GOETTLE: I understand.

25 THE WITNESS: -- which one of the four pages on the

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1 page you're referring to.

2 THE COURT: If you look in the boxes, there are page
3 numbers identified in each box.

4 THE WITNESS: But none of those is 58, so --

5 THE COURT: 57.

6 THE WITNESS: So I guess which -- so I'm confused
7 when you --

8 MR. GOETTLE: Can I approach, your Honor?

9 THE COURT: I'll do it. 57 --

10 THE WITNESS: 58 of the deposition or 58 of the page
11 number at the bottom?

12 THE COURT: You're looking at the --

13 THE WITNESS: Okay, now I'm with you. Okay.

14 THE COURT: And you're looking at page 57.

15 THE WITNESS: Okay. There's two page numbers, but
16 I'm here. Okay, I'm with you.

17 BY MR. GOETTLE:

18 Q 57, line 20, do you see there's a Q for question?

19 (Pause.)

20 Q Sir, I'm going to read it, I just want to make sure
21 you're --

22 A Yes, I'm with you.

23 Q Okay. Question: "And I take it then it's for that
24 reason that interfaces and protocols is just one of six or
25 seven factors you would look at to determine whether two

1 elements are on the network?"

2 And you answered, "Yes. I don't believe any one
3 factor would be deterministic, I think you have to look at
4 all six or seven different factors to understand."

5 Did I ask you that question and did you give that
6 answer?

7 A Yes, I did. And as I explained, in some cases I looked
8 at all six factors, six or seven to understand, in other
9 cases I didn't need to. And they're not -- any one by itself
10 is not deterministic, that's the point I was making here.
11 You have to look at a holistic view of these characteristics
12 or factors.

13 Q Well, and in fact, sir, you testified that you have to
14 look at all six or seven factors, all of them, that's how you
15 testified, correct?

16 A Well, the answer six or seven doesn't mean all, it either
17 means six or seven. So that statement in itself, by itself
18 doesn't mean all.

19 Q You didn't answer six or seven because you couldn't
20 remember whether you had listed six or seven?

21 A Well, it's because you were going through, I never had an
22 initial list as we worked through the deposition. If you
23 recall, you were numbering them as we would go through. And
24 so at this point I didn't know what your numbering was at.

25 Q Okay, but you do -- whatever the numbering, you have to

1 consider all of them, however many there are?

2 A And I did consider all of them.

3 Q Okay. So you do have to consider all of the factors in
4 determining whether a network element qualifies as a core
5 network element?

6 A And I felt to give an accurate assessment and answer I
7 needed to look at all these characteristics.

8 Q So that's a yes, you have to consider all of --

9 A I had to consider them, but I am clarifying in some cases
10 I could consider them and it was easy after the first two or
11 three. In other words, they're not all weighted equally
12 depending upon the document and the situation.

13 Q Okay. So, sir, did you place -- in looking again at
14 these seven factors, did you place different weights on
15 different factors?

16 A No. Again, as I've already said multiple times, I didn't
17 provide a weighting on those. I would look at the factors,
18 sometimes a factor would be more obvious on one document than
19 the other. The example I just used was the Picture Mail,
20 which was obviously external for multiple reasons.

21 Q Okay, so you didn't -- each of these factors weighs
22 equally, it's just that one of them overrides the other?

23 A I didn't provide -- again, you keep implying that this is
24 some pre-composed test of mine that had weights on every
25 factor. These are all factors I considered based on my

1 experience and then, looking at the different documents, I
2 would apply these factors. In some cases some factors would
3 clearly show information, other times they wouldn't. So then
4 I would need to look to the other ones and then they would
5 weigh in heavier. It all just depended on each document and
6 each situation.

7 Q Okay. And if the jury is to find that -- is to disagree
8 with you that one of these factors -- if the jury was to find
9 that one of the factors that you placed weight on actually
10 doesn't cut one way or the other, should the jury reject your
11 opinion all together?

12 A No, I don't believe so, because I didn't cover all six or
13 seven factors as I walked through. To me it's clear with
14 just the three or four different factors that I showed for my
15 holistic test that it was obvious that Sprint's messaging
16 servers were internal to its core network. I also used Dr.
17 Akl's functionality example and showed how it was flawed. So
18 there's multiple reasons why the jury would find that Sprint
19 doesn't infringe, they don't need to look at all six or seven
20 factors.

21 Q They don't -- the jury doesn't need to look at all six or
22 seven factors. So if the jury finds that two of your factors
23 don't cut one way or the other, then should they reject your
24 opinions?

25 A I don't think I would put any number on it. I would ask

1 the jury, again going back to the factors and the example I
2 used just to simplify it, how do you determine whether the
3 washer or dryer is inside the apartment, what factors do you
4 need to see? The first one is, are they physically in the
5 apartment, that might be an important factor for you to
6 consider, or it might be who's paid for the washer and dryer,
7 who uses them and pays for their power? Or you can look at
8 some of those factors and say the washer and dryer is
9 obviously inside the apartment. Or if you see that it's the
10 laundromat and there's no washer and dryer there, then
11 there's other factors you can actually say without looking at
12 all seven factors whether that washer and dryer is inside the
13 apartment or not.

14 Q Okay. So was the patent one of the factors that you
15 looked at in determining that Sprint's messaging servers
16 qualify as core network elements?

17 A Yes.

18 Q Okay. And which way did the patent cut in terms of your
19 analysis?

20 A Well, the patent described that there were options, that
21 it's preferable for the messaging server to be external to
22 the network, but the claims set a hard-and-fast rule that the
23 messaging server needs to be external to the cellular
24 network. So that's a very clear requirement.

25 Q Okay. Does the invention apply in a CDMA network?

1 A As I explained in my direct, the invention shows diagrams
2 that are for the European network, but that doesn't eliminate
3 being applicable or applied to a CDMA-2000 network.

4 Q And again, CDMA-2000, you referred to something called
5 ANSI during your direct testimony?

6 A The ANSI standards family, yes.

7 Q And CDMA-2000 falls under ANSI?

8 A Yes. CDMA-2000 is in the ANSI standards family.

9 Q Okay. And the patent itself describes, it states that
10 the invention applies to a CDMA-2000 network, right?

11 A It says that it may apply or it can apply to a CDMA-2000
12 network and I think I was careful to explain to the jury I
13 wasn't trying to say this only applies to European network
14 standards, it applies equally to CDMA-2000.

15 Q It applies equally to CDMA-2000 networks?

16 A That's correct.

17 Q Okay. So then we get to number two, the standards,
18 right? And you talked to the jury about what the standards,
19 how those standards informed your opinion, right?

20 A Yes.

21 Q Okay.

22 A As a starting place. Let's be -- I was very clear to say
23 I wanted to start with the standard to see what the
24 recommendation stated.

25 Q Well, actually I think you may have used the term

1 foundational, that the standard was foundational to how you
2 started off your analysis, does that sound right?

3 A It's a foundation or if you're -- if you think about,
4 that's a good starting place to figure out what does the
5 standard recommend and then go from there.

6 Q Well, if something is foundational, that would be a good
7 starting place, right?

8 A If you're building a building, that's a wise place to
9 start, yes.

10 Q Okay. But just to be clear, the standards are not
11 necessarily describing Sprint's network, right?

12 A Again, as I was very clear to say, they were
13 recommendation. It's not a hard-and-fast rule, but it is a
14 recommendation and for the standard that I looked at, one of
15 the standards was 1500 pages of recommendations that are very
16 specific.

17 Q And is your opinion the same -- with respect to
18 standards, is your opinion the same for MMS, multimedia
19 service, as it is for SMS, short message service?

20 A I don't know which opinion you're -- you need to be more
21 specific --

22 Q Sure.

23 A -- I'm not following your question.

24 Q I'll be more specific. So you talked about the ANSI
25 standard itself, right, DX-3, do you recall that?

1 A Yes.

2 Q Okay. And then later on you talked about another exhibit
3 that was focused on MMS, do you recall that?

4 A Yes.

5 Q Okay. And the MMS, your opinion in terms of the
6 recommendation and these standards recommending placement of
7 a messaging server, it's the same for both, for SMS and for
8 MMS under the standards, correct?

9 A No, that's not true. If I look at the early messaging
10 servers for the 1997 specification, the 1999, that box that
11 was MC was always inside the core network. Then when I
12 progressed and looked at the MMS specification, if you recall
13 I had two colors, I had orange for scenarios 1 and 2, then I
14 had blue for scenario 5. So the MMS standard states that two
15 different scenarios that are relevant here could be done, one
16 as a service bureau, which was scenario 5, and one inside the
17 core network, which was scenario 2 that I colored in that rd.

18 Q Okay. So then there's a distinction to be made between
19 SMS in this case and MMS?

20 A For the MMS specifications there was a distinction in the
21 recommendation that there's two different ways to implement
22 MMS -- at least two different ways, two different ways that
23 are relevant here.

24 MR. GOETTLE: Okay. Can you put up -- Mr. Dyer, can
25 you put up slide 80 from Mr. Lanning's presentation?

1 (Pause.)

2 BY MR. GOETTLE:

3 Q This is what you were referring to with scenario 2 and 5?

4 A Yes. I was trying to make sure I had the colors right
5 and I think I did for the different colors and scenarios.

6 Q Okay. So and you're referring to the fact that this --
7 by the way, just stepping back, this is from one of the
8 standards that you say applies to your analysis, right?

9 A Yes, the standard for MMS functionality.

10 Q Okay. And this standard has a scenario 5 in it which is
11 essentially using this third-party service provider to host
12 the multimedia service center, right?

13 A That's correct. As I explained, it's the blue circle
14 down on the bottom right.

15 Q And so this standard is not making a recommendation one
16 way or the other where the messaging server be placed, right?
17 It's saying you would do it inside, you could do it outside.

18 A That's correct, for the MMS.

19 Q For MMS.

20 A Sorry, for the MMSC.

21 Q Okay. And I just asked you a question, but we've got to
22 be really clear about the language, right, I just asked you a
23 question that said the standard is saying you could either
24 have it inside or you could have it outside, the standard
25 isn't recommending, right, that's what I asked you?

1 A Well, I guess if we're being clear, the standard is
2 saying about the core network. So if you look at the orange
3 language, "some network operators may wish to implement the
4 MMS functionality within the core network, e.g. scenarios 1
5 and 2." So when we're talking about it or out, you know,
6 it's the core network that it's referring to.

7 Q Okay, right. And that's what matters, right? At least
8 in the claim construction what matters is whether the MMSC or
9 the messaging server for MMS qualifies as a core network
10 element, right?

11 A At a high level, yes.

12 Q Well, at any level. That's the fundamental question that
13 the jury needs to be answering, right, does Sprint's MMSC
14 qualify as a core network element of Sprint's cellular
15 network?

16 A I guess I'd have an exception with the word qualify, you
17 know, to me is that it either is or it isn't. And so I would
18 rephrase your question or I can agree with your question, you
19 need to determine as the jury is the MMSC a core network
20 element or not.

21 Q And if it is a core network element, then it is internal
22 to the cellular network, and if it is not, then it's
23 external?

24 A Yes.

25 Q Okay. And in this standard there's no recommendation one

1 way or the other whether the MMSC is a core network element
2 or not a core network element?

3 A I think there is. There was a recommendation for
4 scenario 2 that it's a core network element and for scenario
5 5 there's a recommendation that it's done as a service
6 bureau, which is obviously not a core network element. So
7 it's providing both examples, but it says if the network
8 operator chooses scenario 2 the MMSC is a core network
9 element.

10 Q So it's providing two recommendations?

11 A Two options.

12 Q Two options, but I think you just referred to them as two
13 recommendations. Are they options or are they
14 recommendations?

15 A Well, they could be either one. I mean, there's five
16 scenarios here, there's two that I'm discussing that are
17 relevant. So let's call them what the document calls them,
18 they're two different scenarios.

19 Q There's two different scenarios and the standard is not
20 recommending one over the other?

21 A No, it's just stating the facts of how an operator may
22 implement an MMSC.

23 Q Okay. So the standard then here at least for MMS is
24 agnostic in your analysis of whether an MMSC is a core
25 network element or not, the standard isn't recommending one

1 way or the other?

2 A That's correct. So I start there and realize that fact,
3 and then you need to go to the Sprint documentation to find
4 out how they -- how they, meaning Sprint, implemented the
5 MMSC.

6 Q Right, because the standard doesn't cut one way or the
7 other for MMS?

8 A It's one of those characteristics and right now its
9 weight is not real heavy because you don't know looking at
10 the standard which way is really preferred for a network
11 operator; it's up to the network operator, meaning Sprint, to
12 decide.

13 Q Well, you said the weight is not real heavy, but actually
14 there should be no weight at all because it's not
15 recommending one way or the other, right?

16 A Well, but that's a factor that it's not weighing one way
17 or another, so that's still a consideration. Okay, it's
18 neutral.

19 Q It's neutral, okay.

20 A But that still is a consideration --

21 Q Sure.

22 A -- as I look at the analysis.

23 Q Oh, I wasn't -- just to be clear, I'm not suggesting you
24 didn't consider it, I just want to know how it cut, and it
25 sounds like for MMS it doesn't cut one way or the other, this

1 standard?

2 A And this goes back to my point that I don't weight the
3 different characteristics until I look at the standard. In
4 this case you really can't put a lot of weight on this, you
5 have to put weight on something else, and that would be more
6 towards the documentation.

7 (Pause.)

8 MR. GOETTLE: Mr. Dyer, can you put up Mr. Lanning's
9 slide 32?

10 THE COURT: What number?

11 MR. GOETTLE: Slide 32 of Mr. Lanning's
12 presentation.

13 BY MR. GOETTLE:

14 Q This is the other standard that -- or one of the other
15 standards that you showed the jury during your direct
16 examination?

17 A Yes.

18 Q Okay.

19 MR. GOETTLE: Actually, can we go to the next slide?

20 (Pause.)

21 BY MR. GOETTLE:

22 Q And in this diagram, again these boxes that we're looking
23 at here, these are not computers, these are not hardware,
24 these are functions, as you termed it these are groupings of
25 functions, right?

1 A Groupings or functions or logical boxes.

2 Q Logical boxes?

3 A When you group functions together it's now a logical
4 entity, that's why the words "functional entities may
5 logically comprise a network element." So when I look at a
6 box I think of that as a collection of functions in a logical
7 grouping.

8 Q Okay. And that's consistent with what Mr. Lipford told
9 us yesterday, right?

10 A Yes.

11 Q Okay. And then below that you have the -- I think you
12 have the definition of network reference model below the box,
13 right?

14 A Yes.

15 Q And that says "the functional entities and the associated
16 interface reference points that may logically comprise a
17 cellular network," do you see that?

18 A Yes.

19 Q You read may as meaning recommends, right?

20 A May again and I think I was careful to point that out to
21 the jury during my direct that it's may, meaning this is a
22 recommendation. It is not hard and fast, it's not a hard and
23 fast rule stated by the standard.

24 Q Well, you tilt the field a little bit when you start
25 talking about a recommendation, don't you? Because all this

1 says is may, it may be included which is different than
2 recommending that it be included, right?

3 A Well, not in my mind, not for years and years using these
4 standards. I was actually using these standards in 1997.
5 It's very clear to me what this recommendation says and what
6 it does.

7 Q I see. So skilled artists and experts in the field read
8 the word may as meaning recommends. And lay people might not
9 pick up on that, is that right?

10 A No, we don't read the word may as recommends, but when
11 we're looking at this recommendation, we're understanding
12 that this is -- there's been a lot of thinking behind how you
13 group these functionalities and the logical entities. Like I
14 explained for the British Telecom network we had thousands of
15 requirements and we had to batch them together logically.
16 This is the first place we looked as our first place to try
17 to determine how we group all the functions.

18 Q And so skilled artists in reading this definition that
19 says that the neva reference model (ph) may comprise these
20 functions a skilled artisan would read that as actually
21 saying we recommend that you include these functions?

22 A It's in the recommendation. It says it may include,
23 which also just like the construction it may not as well.
24 One understands that. We constantly look at these standards
25 and then decide as the network operator whether the core

1 network is going to include them or not.

2 Q I really can't tell if you're answering yes or no to my -
3 - disagreeing or agreeing with me. When a skilled artisan
4 reads this sentence the functional entities and the
5 associated interface reference points that may logically
6 comprise this other network. Does the skilled artisan
7 interpret that as a recommendation? Or not?

8 A A skilled artisan looks at this piece of paper like we've
9 done many times and with the engineers I've worked with as a
10 reference point, a recommendation. This is the initial shot
11 at what the logical entities should be for the network.
12 Okay? And then the main language is then understood to mean
13 it's not a hard and fast rule. There can be exceptions to
14 each one of these entities, but here is the initial starting
15 point. I don't know how else to answer it. I can just tell
16 you how we've used it for years in building networks.

17 Q I wouldn't mind a yes or a no answer. When you read
18 this, this sentence I just read into the record, that to you
19 means we recommend that you include these functions?

20 A That's not what I'm saying and that's why I can't give
21 you a yes or no answer.

22 Q Okay, okay. So looking at the network reference model,
23 the -- it has the mobile phone, that's the MS, right?

24 A Yes.

25 Q And in the network then that mobile phone, the goal would

1 be for that mobile phone or one goal would be for that mobile
2 phone MS to be able to be connected to the PSTN, right?

3 A Somebody's highlighted the MSC.

4 Q Yeah.

5 A Is that what you wanted to highlight?

6 Q No.

7 A Okay, that's the MS or the mobile phone. We can just
8 call that the cell phone for now.

9 Q Cell phone, okay. And one of the goals of having a
10 cellular network and this network reference model is to have
11 that phone talk to a phone on the PSTN, right?

12 A Right. The PSTN is the public switching telephone
13 network. We refer to it a lot as the landlines or the
14 landline that's in your house, the wired type network. In
15 the terminology we would describe that as a mobile to land
16 call.

17 Q Okay, and that's one of the goals of this -- that
18 reference model and the cellular network built according to
19 this network reference model, right?

20 A I would agree that it's the goal of many cellular
21 networks to connect to a PSTN, yes.

22 Q Okay. And if the functions that are labeled BS, which
23 stands for base stations right?

24 A Or it could be base station system, too.

25 Q And that would be the antennas and maybe a base station

1 controller that controls the antenna.

2 A Yes, the two combined feature that I've kind of drawn
3 here on this line tube, yes.

4 Q Okay. If those functions malfunction or aren't there,
5 the phone cannot connect to other networks, right?

6 A If any of those -- if the BS malfunctions the phone can't
7 do anything but play games locally with itself.

8 Q Okay, and if the MSC Mobile Switching Center
9 malfunctions, then the phone cannot connect to the PSTN?

10 A The phone can't do a bunch of things. It cannot connect
11 to the PSTN. It cannot make calls to other mobiles. And it
12 cannot send or receive short messages.

13 Q And if the HLR malfunctions same problems, right?

14 A No, different set of problems.

15 Q Okay. What are those?

16 A The problems HLR is mostly associated with mobile
17 terminated calls. Sorry for all the terminology, but to keep
18 it straight, meaning calls coming into the network that are
19 terminated on the network. HLR's main purpose is to provide
20 the network with the location subscriber. So when I got on
21 the plane from Dallas and came here, the HLR in my area got
22 updated that I'm in the Philadelphia area so the network
23 knows to connect the call to the Philadelphia area switches.

24 Q And if the VLR malfunctions, that's a visitor location
25 register?

1 A Yes.

2 Q Also problems connecting phone calls, right?

3 A You're asking me a lot more difficult questions than what
4 you might think. If the VLR malfunctions it affects many
5 calls, but mostly the mobile terminated calls for that
6 switching area.

7 Q Okay. This is, in fact, I think this is the one that's
8 closest -- this is the diagram that you have on the big
9 board?

10 A Yes.

11 Q I notice you have a box that's labeled core network.

12 A Yes, the yellow box.

13 Q Okay, and in the middle, in the center, the core of the
14 core is the messaging servers in this diagram, right?

15 A They are in the center because they're the center of the
16 discussions here at this trial.

17 Q I see. If that messaging -- is that messaging server, is
18 your diagram supposed to signify both SMSC's, the messaging
19 centers for SMS and also MSME's?

20 A Yes. I've used it for both the short message service
21 center and the multimedia message center.

22 Q Okay, if that messaging server malfunctions, then a
23 Sprint subscriber cannot send or receive messages, text or
24 MMS messages, right?

25 A That's correct.

1 Q That Sprint subscriber will still be able to make phone
2 calls.

3 A Yes.

4 Q And that Sprint subscriber will still be able to get on
5 the internet, surf the internet, right?

6 A Yes.

7 Q And that Sprint subscriber will still be able to --
8 actually I should have asked you this before. That Sprint
9 subscriber will still be able to make phone calls on the
10 circuit switch network and also phone calls on the packet
11 switch network, right?

12 A Are you just talking about any time frame in general like
13 today or -- we've been looking at standards, so it's
14 important -- you've just asked me again and it sounds like an
15 innocent question, but it's very difficult unless you give me
16 a time frame that you're talking about because you just
17 covered 20 years of technology with your question.

18 Q Okay. I didn't mean to --

19 A I'm just explaining that the question isn't as simple as
20 it sounds, so I need to get some context for what you're
21 asking me.

22 Q Okay, let's go with today. I'll set it up again. If the
23 messaging server breaks today on Sprint's network, a Sprint
24 subscriber cannot make a phone call on the regular phone line
25 circuit switch phone call or a voice over I-key (ph) call on

1 the packet switch network, right?

2 A If what breaks?

3 Q Did I say MSC?

4 A I don't know. You've got me confused with the
5 terminology that you asked me.

6 Q Yeah, okay. Well I certainly don't mean to confuse you,
7 so I'm glad that you keep asking me to clarify.

8 A Well, your question didn't make any sense, that's why I
9 was confused.

10 Q If the messaging server in Sprint's network today breaks,
11 a Sprint subscriber can't make a phone call, right? I can
12 make a phone call, right? (Laughter.)

13 A Sorry, when I do this with my head it means I'm going on
14 tilt. What's your question?

15 Q I should be taken out and shot. I'm sorry.

16 A Can you try it one more time?

17 Q For the tenth time, if Sprint's messaging server today
18 breaks, a Sprint subscriber can still make a phone call.

19 A Yes.

20 Q Whether that phone call is using the circuit switch
21 network or the packet switch network?

22 A That's correct.

23 Q Okay. And that Sprint subscriber, if the messaging
24 server breaks today that Sprint subscriber can still receive
25 phone calls.

1 A That's correct.

2 Q And the same was true in 2006 and has been true every day
3 from 2006 to today?

4 A You're going to have to ask me the specific questions
5 again. Now you're restricting the calls over the data
6 network that I'm not sure of. If you just leave the
7 questions to the circuit switch network, then I can answer
8 those questions.

9 Q Okay. From 2006 to today if Sprint's messaging servers
10 broke or malfunctioned, a Sprint subscriber could still make
11 a phone call on the circuit switch network?

12 A Yes.

13 Q And by circuit switch network we mean sort of like the
14 regular phone line that a lot of us grew up with, that
15 technology is what I mean.

16 A At the very highest level I will agree with you, but it
17 goes through the MSC or the Mobile Switching Center.

18 Q Okay. And I take it from your last -- a couple answers
19 ago I take it you don't know one way or the other what would
20 happen with a packet switch call in Sprint's network.

21 A Let me answer in technical terms, maybe that will help.
22 I don't know when Sprint implemented voice over IP over their
23 data that works so I can answer the question.

24 Q Okay. If Sprint had the capability, if the messaging
25 server broke it wouldn't affect that capability?

1 A That would be correct.

2 Q Okay. Down to factor number three, Sprint's
3 documentation. That's the third factor, your third
4 characteristic of your holistic analysis, the third one is
5 Sprint's documentation, right?

6 A Yes.

7 Q And so for this one you looked at Sprint documents and
8 looked at how Sprint, the operator described the cellular
9 network and the placement of the messaging servers?

10 A Yes. Most of the documents that I was aware of as well
11 as the documents that Dr. Akl identified.

12 Q And in doing that analysis, did you also consider the
13 testimony along the lines of what we heard yesterday from
14 numerous Sprint witnesses about Sprint's core network and
15 Sprint's core sites?

16 A I think the depositions were a lot more detailed, the
17 deposition transcripts that I read. But I think the subject
18 matter was very similar.

19 Q Okay. You were in the courtroom yesterday for some of
20 that testimony?

21 A Yes.

22 Q Did you hear all of it?

23 A I wasn't here all afternoon if that's what you're asking
24 me.

25 Q Okay. But you recall that Sprint witnesses, fact

1 witnesses, sat on the stand and talked about Sprint's core
2 network and how they -- Sprint has a core network and they
3 refer to it as a core network, right?

4 A Yes. If I wasn't here I read the trial transcripts, so
5 I'm familiar with that, yes.

6 Q Does that type of testimony inform your decision of
7 whether Sprint's messaging servers are core network elements
8 of Sprint's cellular network?

9 A Well now we have to be careful, because as many of the
10 Sprint witnesses were asked had they read the patent? The
11 answer from most if not all was no. Did they know about the
12 claim construction? No. So any answers that the Sprint
13 witnesses gave were just from their own job, their own
14 terminology they used every day. So I have to take the
15 deposition testimony and even trial testimony of the Sprint
16 witnesses and consider what they're saying in the context of
17 their daily job, not how it applies -- they're not saying how
18 it applies to the patent or the construction. They haven't
19 even read the patent for most of them.

20 Q So the fact that the Sprint witnesses refer to Sprint
21 having a core network, you wouldn't just take that and apply
22 that in your holistic analysis?

23 A When a Sprint person or document says core network, I
24 cannot automatically say that matches up with the core
25 network that the definition the Court's given us. Okay? The

1 Court's given us a very specific definition for that. So I
2 have to make the translation between what an employee is
3 saying versus what the Court says we need to consider.

4 Q Okay, you have to make that translation, right?

5 A Right.

6 Q You can't just accept the fact that they said it, you
7 can't accept that as meaning that Sprint has a core network
8 even, right?

9 A Well, the terminology is used a little differently even
10 within groups, within the same organization, so I understand
11 that and need to look at and consider those facts.

12 Q You have to be very careful about applying the Court's
13 construction under the patent and not what Sprint witnesses
14 say with respect to their understanding of Sprint and its
15 networks.

16 A Yes, I have to look and make a consideration.

17 Q And in coming up with your analysis in this case, you
18 looked at Sprint documentation, correct?

19 A Yes, as I said earlier.

20 Q And that documentation when it was provided to you
21 amounted to about a foot tall stack of documents, right?

22 A Seems about right, yeah.

23 Q And you showed the jury some of those documents today,
24 right?

25 A Yes.

1 Q You did not search Sprint's documentation to help you in
2 your analysis in this case, did you?

3 A I don't understand what you're asking -- are you asking
4 me did I have access to all of Sprint's documentation library
5 or something? I don't know what you're asking me.

6 Q Did you attempt to get access to Sprint documents to
7 search those documents to help inform your opinion in this
8 case?

9 A Maybe I can just clarify. I didn't have open access to
10 every Sprint document that's been generated or their library,
11 their many documents that Sprint provided and I went through
12 that stack of documents.

13 Q Yeah, the foot tall stack of documents.

14 A Give or take. I didn't measure it, but it's at least a
15 foot tall.

16 Q And Sprint's lawyers gave you those documents?

17 A Most of them, and then I had other knowledge, just that
18 of a CDMA 2000, but for this specific Sprint documents, yes.
19 Those were produced by Sprint and given to me by the lawyers.

20 Q And you didn't have access -- I understood your testimony
21 just now. You didn't have access to Sprint's libraries of
22 documents at Sprint, right?

23 A No, that's probably not a good policy to let anyone come
24 in and get all the design documents, so I'm not allowed to do
25 that either.

1 Q But you didn't even have access to the documents that
2 Sprint provided to Comcast pursuant to this lawsuit?

3 A I don't know if I did or not. You're asking me questions
4 I don't know.

5 Q You don't know whether you've had access or not?

6 A There was a lot of documents. You're asking me the
7 question if I had documents, specific sets of documents.
8 I've provided a whole list of documents that I've considered.
9 I guess you could get the answer from that. I didn't
10 memorize the thousands of documents or so.

11 Q But you had a foot tall stack of documents from Sprint's
12 lawyers?

13 A That's your characteristic, a foot tall. The more I
14 think about it I think it's probably even bigger than a foot
15 tall. I don't know. Like I said, it's not my habit to stack
16 them all on top of each other and say how tall is this stack?
17 I just remember I had boxes of documents.

18 Q You had boxes of documents from Sprint's lawyers?

19 A Yes.

20 Q Can you go to page 21 of your deposition, the same
21 deposition we were looking at earlier which is from March
22 3rd, 2016?

23 A Okay, I'm there.

24 Q Didn't I ask you at line 5, question: "Okay, thank you,
25 okay. So earlier we were talking about the Sprint documents

1 that you reviewed. How many -- how many documents do you
2 think you were provided that were Sprint documents?

3 "Answer: I didn't count them. It seems like they
4 were about a foot tall, the stack that I looked through."

5 Do you see that?

6 A Yes.

7 Q Did I ask you that and did you give that answer?

8 A Yes, I did, and to clarify I had many documents to go
9 through. Some of the documents were essentially the same
10 document or different versions of the same document. Out of
11 those I selected, and that's where I said it seems like a
12 foot tall. And I still stand by that. I don't know for sure
13 how tall, like I explained. It's not my normal practice to
14 stack them all up and measure them.

15 Q But you would agree that a foot tall stack of documents
16 is not boxes of documents, right?

17 A Well, but there were initially boxes of documents and
18 then I selected the documents to go through. A lot of times
19 documents are produced there's a lot of duplicates is what
20 I'm saying. There's either duplicates or there's different
21 versions.

22 Q So let's go to page 18, line 10.

23 A I'm there.

24 Q Okay. Did I ask you a question, "How did you find the
25 Sprint generated documents? "Answer: I was provided with a

1 stack of Sprint documents that I went through. I didn't
2 personally locate or go get Sprint documents or use any
3 Sprint documents I might have."

4 Did I ask you that question and did you give that
5 answer?

6 A Yes, I did. Again they're not clarifying with the stack
7 is that I'm referring to, and I've clarified it more. Maybe
8 I used the word stack, I don't know. Again, that's not my
9 normal practice to stack documents. They always come in
10 boxes for me.

11 Q Okay, and it's not your practice to use foot tall, but
12 that was your wording, not mine, right?

13 A Yes, and I stand by it. I have no issue with it.

14 Q Okay. And I didn't see any documents in your direct
15 testimony or in your expert reports that were inconsistent
16 with, that showed a messaging server outside of Sprint's
17 cellular network or network, right?

18 A No, that's not true. As a matter of fact I even showed
19 the jury an example of that as the pitcher mill (ph) MMS.
20 And I showed that example that it was truly external to
21 Sprint's cellular network.

22 Q Great distinction. I had forgotten about that. I don't
23 have it in my mind because it's not at issue in this case.
24 But for the other messaging servers you didn't, in your
25 report or before the jury today you didn't show the jury any

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1 documents that are inconsistent with the notion that the
2 messaging servers are inside the cellular network. Do you
3 need me to do it again? It was awful, wasn't it?

4 A It was difficult, but maybe I could just -- I didn't show
5 the jury any documents first off where the SMSC's were
6 external to the Sprint cellular network because I believe
7 they never were. They never were, never have been, are not
8 today. The SMSC's are internal to the network.

9 When I went to the MMS, Sprint's initial MMS
10 implementation included an external save for the pitcher meld
11 application. Then I showed how they all moved inside the
12 Sprint cellular network. And so I showed all the
13 documentation I had. I haven't seen any -- and I considered
14 all of Dr. Akl's documentation. And if he felt that there
15 were documentation that showed that it was external, I would
16 have reviewed that and considered that as well.

17 Q Can you go to, Mr. Lanning, slide 47?

18 This is a slide that you showed the jury earlier
19 today?

20 A Yes.

21 Q Okay. And this is a slide with respect to the geographic
22 location of Sprint's SPS subscriber profile system?

23 A Well, there's two pieces of information here. One is the
24 geographic locations, but then too what systems are in each
25 location.

1 Q Okay. So what other systems are in each location? Is
2 that the list that's down below on the left?

3 A Yes. The key on the left if it were a little better
4 graphic has different colors and different shading,
5 depending. And so that's what all the little ovals
6 represented, each side, is which ones of those pieces of
7 equipment are at any -- each side.

8 Q But sir, you understand that Sprint didn't always have
9 its subscriber profile systems, SPS's at these locations,
10 right?

11 A That's correct.

12 Q And it wasn't until just a few years ago that they got
13 moved to these locations?

14 A That's correct, but also Sprint had their SPS servers
15 before they had messaging connecting to them, too. So you
16 had to look at the drawings and what made the most sense. If
17 the SPS database is there and it's not being queried by a
18 message server, that's not a real relevant document for me to
19 consider.

20 Q But you do understand that the SPS, this subscriber
21 profile system, a subscriber database in Sprint's network,
22 you do understand that it's used for more than just
23 messaging, right?

24 A Yes, that's correct.

25 Q In fact we were talking about what would happen if a

1 subscriber database broke. If Sprint's subscriber profile
2 system broke, a Sprint subscriber could not get on the
3 internet, right?

4 A I don't know for one way or another. I think there's a
5 lot of default situations where the subscribers could, but
6 again that's not an area I investigated, so I don't know.

7 Q You don't know one way or the other?

8 A I don't know one way or the other.

9 Q And if a Sprint subscriber wanted to make a phone call
10 using voice over IP, using the packet switching network,
11 without the Sprint SPS they wouldn't be able to do that.

12 A Again I don't know, but as I said, I wouldn't design the
13 network that way because typically if one of my databases
14 went down I would do whatever I could to keep the services
15 going while I got the databases going, so I don't know, one
16 way or the other.

17 Q You have no idea if Sprint has set up this system that
18 might work even if the SPS goes out?

19 A It hasn't been part of my analysis. I've never been
20 asked that question before, so I haven't performed an
21 analysis of Sprint's network in that area.

22 Q Okay. But you do agree that Sprint used to have its SPS
23 Sprint -- subscriber profile system, it used to have him
24 spread out across the country, and now they're consolidated
25 in these places, right?

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1 A I do understand that they moved around, but when they
2 were actually with the messaging systems at the date of this
3 document, they were next to the messaging servers, as I
4 explained.

5 Q Okay. And before they were next to the messaging
6 servers, were they core network elements?

7 A I don't know. I haven't performed that analysis. The
8 analysis doesn't get into what SPS was before it was involved
9 with messaging. That's outside the scope of this trial.

10 Q So you don't know one way or the other whether the
11 subscriber profile system was a core network element of
12 Sprint's cellular network before it got moved to one of these
13 three locations?

14 A I'm saying that I haven't performed the analysis, so I
15 can't give you an answer on that. I would be guessing, and I
16 don't think that does anyone any good.

17 MR. GOETTLE: Your Honor, I just looked up at the
18 clock, would you like me to stop?

19 THE COURT: Yes. Yes.

20 MR. GOETTLE: If I'd asked you that an hour ago,
21 would your answer have been the same?

22 THE COURT: No, I don't think so. But now we're
23 stopping because it's not quite 20 of 5:00.

24 Michael, would you ask Milahn to come in?

25 I'm just going to get an update on the weather and

1 I'll give you some instructions.

2 I can tell you some weather, ladies and gentlemen.
3 It's supposed to start snowing around 4:00 a.m. and then turn
4 to rain and snow. I can tell you that the temperature in
5 Philadelphia now is 63 degrees, and now we'll find out what
6 we're going to do.

7 Any changes?

8 What we'll do is this. You should all have my
9 courtroom deputy, Milahn Hull's courthouse number. And I'll
10 read it in open court, it's the courthouse number, her
11 courthouse number. (267)299-7339. She will leave a voice
12 message on that telephone. And the message will be updated
13 as soon as she receives an alert about a courthouse opening
14 or delay or a closure. Those are the choices. We'll either
15 be open, we'll open late or we'll close. And I'll abide by
16 what my colleagues on the quote weather committee decide. It
17 is a committee that I've tried to stay away from for many
18 years because they have to make these decisions in the very,
19 very, very early morning.

20 So if you call that number you will be able to reach
21 her. Ms. Hull has also given you and I will not recite this
22 number in open court, and I gather counsel have these
23 numbers, her cell phone number, her I-phone number. And if
24 you have any questions you can call her at that number,
25 different number, her I-phone number. It's something you

1 have. I'll not announce that in open court. And you can
2 call her if you have any questions. You also have her email
3 address.

4 I think that's the way we'll proceed. The weather's
5 been so erratic we can't predict what will happen. I'd like
6 to go forward with the trial. But if the weather is bad we
7 certainly recognize that some of you live at great distance
8 from the courthouse. So we don't want you out in bad weather
9 driving or walking or training or bussing. And so be mindful
10 of the instructions on Ms. Hull's office voicemail.

11 Anything else that needs to be said, except my
12 regular end-of-the day instructions. Do not listen to
13 anything that might be broadcast on radio about the case, the
14 same about viewing things that might be broadcast on
15 television that deal with the case. Do not read anything in
16 a local newspaper or any newspaper that deals with the case.
17 Don't discuss the case with anyone at home. Don't discuss
18 the case among yourselves.

19 I don't think anything else needs to be said except
20 have a safe trip home, and of equal importance, maybe more
21 importance, if we're open tomorrow, get here safely. Don't
22 do any rushing. If we're open and you're slowed down, don't
23 worry about getting here on time. All of you have been very
24 prompt. I'm looking at one of you who was not so prompt once
25 or twice, but all of you are very prompt and that's a goal to

1 be desired, but not in bad weather. So do not rush to get
2 here.

3 I don't think anything else needs to be said.
4 Counsel?

5 MR. FINKELSON: No, your Honor.

6 MR. GOETTLE: No, your Honor.

7 THE COURT: All right. Safe trip home, safe trip
8 back tomorrow if we're open. If we're not open tomorrow,
9 9:30 on Friday morning.

10 (The jury exited the courtroom at 4:42 p.m.)

11 THE COURT: Be seated, everyone.

12 You may step down, Mr. Lanning.

13 Is there anything else we have to address this
14 evening?

15 MR. GOETTLE: No, I don't have anything. I don't
16 think we have anything.

17 MR. FINKELSON: Your Honor, if I could just move
18 several exhibits into evidence.

19 THE COURT: You may.

20 MR. FINKELSON: So my first set of exhibits, and
21 there are only six of them, are Exhibits that were in Mr.
22 Lanning's binders. And those are DX-2, DX-6, DX-11, DX-15,
23 DX-198 and DX-210.

24 THE COURT: Any objection, Mr. Goettle?

25 MR. GOETTLE: I'm sorry. No objection, your Honor.

1 THE COURT: They're received in evidence.

2 (Exhibits DX-2, DX-11, DX-15, DX-198 and DX-210 were
3 received in evidence.)

4 MR. FINKELSON: The second set of exhibits which
5 consist of one is an exhibit that was in Mr. Hoelzle's
6 witness binder yesterday that I neglected to read at the
7 time, and that's DX-234.

8 THE COURT: Any objection, Mr. Goettle?

9 MR. GOETTLE: That was on the omnibus --

10 MR. FINKELSON: It was in the binder materials
11 proposal --

12 MR. GOETTLE: No objection, your Honor.

13 MR. FINKELSON: And then --

14 THE COURT: Wait, I have to rule.

15 MR. FINKELSON: It's out?

16 THE COURT: It's in. DX-234 is in.

17 (Defense Exhibit 234 is received in evidence.)

18 MR. FINKELSON: And then lastly, your Honor, Sprint
19 had designated some deposition testimony to play as part of
20 our case in chief, and I think the parties have reached a
21 resolu -- the primary purpose of that deposition testimony
22 was to get two documents into evidence. Those are DX-150 and
23 DX-155. And as I understand it the parties have reached an
24 agreement that in lieu of playing that deposition testimony,
25 DX-150 and 155 would be admitted into evidence.

1 MR. GOETTLE: No objection, your Honor.

2 THE COURT: Was that an issue presented to me by
3 motion or not?

4 MR. FINKELSON: DX-150 and 155 have been subject to
5 prior motion practice.

6 THE COURT: All right. Well, I'm pleased that you
7 reached agreement, and DX-150 and 155 are received in
8 evidence.

9 MR. FINKELSON: May I approach, your Honor, with
10 copies?

11 THE COURT: You may.

12 Have we been getting updated exhibit lists?

13 MR. FINKELSON: Yes, you have.

14 MR. GOETTLE: It's exciting here every morning, your
15 Honor.

16 THE COURT: All right.

17 MR. FINKELSON: Nothing further from Sprint, your
18 Honor.

19 THE COURT: All right. I think we know what we're
20 going to do about the weather. If you have any issues, call
21 Ms. Hull on her cellphone.

22 MR. FINKELSON: And is your Honor okay with the
23 outline for the proceedings that we've laid out for the
24 remainder of the week, depending on the circumstances? In
25 other words --

1 THE COURT: Yes. You think -- my understanding is
2 first of all we have to complete the cross-examination of Mr.
3 Lanning. And then you have Dr. Polish. And then you have
4 how many damages experts?

5 MR. FINKELSON: Two. So what I would propose is
6 that if we proceed tomorrow, then I think we will get through
7 the liability case --

8 THE COURT: Tomorrow.

9 MR. FINKELSON: -- tomorrow, and may even be able to
10 start the damages case, but we would otherwise be able to
11 start the damages case on Friday. Mr. Riopelle will be here
12 through lunch hour. And then we would ask in those
13 circumstances that we would recess at the lunch hour so that
14 he could go home for funeral proceedings on Friday and those
15 continue through Monday. He will come back Monday night.

16 THE COURT: And we'll know that so we will be able
17 to tell the jury at day end tomorrow.

18 MR. FINKELSON: Exactly. And in the alternative if
19 we have a snow day tomorrow, let's assume tomorrow's a total
20 snow-out --

21 THE COURT: We'll fill out all of Friday.

22 MR. FINKELSON: We'll fill out all of Friday with
23 the tech -- finishing Mr. Lanning and putting on Dr. Polish
24 and then we would stop there at the technical case, at the
25 end of the day, which I think we ought to -- I see no reason

1 why we can't get through. My examination of Dr. Polish will
2 be much shorter and I suspect Mr. Goettle's cross will be
3 similarly confined.

4 MR. GOETTLE: I think that's probably correct, yeah.

5 THE COURT: Not unless Mr. Goettle finds some more
6 factors. (Laughter.)

7 MR. FINKELSON: You've given him a night to sleep on
8 it, your Honor, although I must say he came back with a very
9 efficient set of questions this morning for poor Mr. Golla,
10 who no doubt was up all night.

11 THE COURT: I think Mr. Goettle might have been a
12 little embarrassed. He had to ask Mr. Golla some questions
13 this morning after we held him over --

14 MR. FINKELSON: I thought he handled it exactly the
15 right way.

16 THE COURT: But that really worked. Well, we'll
17 see. And what you're proposing is fine. And in any event
18 we're not going to be sitting if we're in the damages portion
19 of the case if Mr. Riopolle is unavailable.

20 MR. FINKELSON: And we appreciate the Court's
21 consideration and also Comcast --

22 THE COURT: I don't think there was -- there was no
23 issue. It's a sad occasion. He gets (indiscernible)

24 Is there anything else? Mr. Hangle, you're on your
25 feet.

1 MR. HANGLEY: No, sir.

2 THE COURT: Well, I hope we can go forward tomorrow,
3 but we'll see. Keep in mind that my driveway slopes up and
4 it's long. But we'll let you know where we stand. I'll be
5 in touch with Ms. Hull if we're open and I'm going to be
6 late.

7 MR. GOETTLE: Thank you, your Honor.

8 MR. HANGLEY: Thank you, your Honor.

9 MR. GOETTLE: Be safe yourself.

10 THE COURT: Do you have something, Ms. Hull?

11 DEPUTY CLERK HULL: Yes, but I can say it off the
12 record.

13 (Court adjourned for the day at 4:49 o'clock p.m.)

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CERTIFICATION

I hereby certify that the foregoing is a correct transcript from the electronic sound recording of the proceedings in the above-entitled matter.

S:/Geraldine C. Laws, CET
Laws Transcription Service

Date 2/8/17